The Missouri Archaeologist

The First Ten Years

1935-1944

Collection of Native North American Indian Books, Historical Books, Atlases, plus other important authors and family heirloom books.
As of 12-31-93
Earl Ford McNaughton
Earl Ford McNaughton

This publication is a facsimile of the first nineteen issues of The Missouri Archaeologist published from 1935 to 1944. It is a special issue in commemoration of the Fortieth Anniversary of the founding of the Missouri Archaeological Society. It is dedicated to

Jesse E. Wrench, President
Henry W. Hamilton, Vice President
J. Brewton Berry, Secretary

those first officers of the Society who provided the basis for the organization today, and to those charter members that have given their support the past forty years.

R. B. Aker
Richard S. Brownlee II
Carl H. Chapman
Mrs. Wendell H. Cordle
J. M. "Buster" Crick
Wm. R. Denslow
J. Allen Eichenberger
Wm. Lloyd Elder
Elmer Ellis
T. M. Hamilton
Earl H. Lubensky
J. M. Shippee
L. W. Van Dyke

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B. L. Ross, Versailles

THE TASK OF A STATE ARCHAEOLOGICAL SOCIETY

J. C. Harrington, University of Chicago

We are often told that one of the characteristics of man is his inability to learn from the experience of others. Perhaps there is some foundation for this pessimistic outlook, but our newly organized State Archaeological Society has an opportunity of adding some evidence to the more optimistic theory that such a belief is a mere superstition.

Missouri's belated entry into the field of American prehistory may be more fortunate than would appear on the surface. A survey of the results achieved by similar organizations in other states emphasizes the need of most careful planning if our efforts and money are to be spent to the greatest advantage. Can we learn from these other instances just what such an organization can hope to accomplish; how it can best proceed, both in planning a sound program and in carrying it out, avoiding the pitfalls and errors which have so frequently negated the results of these others? The writer sincerely believes that such is possible, provided we 'get off on the right foot.'

Go back to the early reports of many of these State Societies and you will find a theoretically sound statement of the aims and objectives of the organization. Follow up the history of the society and far too often these excellent plans have come to naught. This failure to carry out the objectives which were methodologically sound was due in the main, I believe, to being too anxious to get under way. They lacked a practical and comprehensive program; their insight into the significant problems was often superficial. Good intentions alone will not carry through a hastily planned or impractical program.

Let me review briefly what I believe to be the task of a state archaeological society, giving a few very general suggestions as to how it can be accomplished. The purposes of such an organization can be grouped under two headings: first, the preservation of antiquities, and second, the accumulation of scientific knowledge in order that these prehistoric remains and the cultures they represent can best be understood - understood not only for their own sake, but as an integral part of the aboriginal history of America. We are well aware of the causes for the disappearance and destruction of Indian remains. The inroads of civilization - cities, roads, dams, farming, etc. - have all contributed to the destruction of sites. The curio hunter has not only destroyed mounds in his endeavor to obtain relics, but has scattered beyond recovery many valuable local collections.

Our primary concern, then, is education; teaching conservation. But we cannot stay the hand of civilization, nor of nature, which unwittingly obliterates these evidences of earlier cultures. Neither can we stop the sale and subsequent loss of significant collections. Plainly, then, we must accompany our propaganda for conservation with a program for the study of these sites and collections before they are destroyed. This is not as simple as it sounds. It requires not only the untiring and active interest of every member of the Society, but eventually the expenditure of considerable sums of money.

Look back at the work of other states again and see what they have done. We find altogether too many instances of files and desks and basement shelves cluttered with masses of unorganized references to sites, too inaccurate and insufficient ever to be of any great value. A site which cannot be re-located for careful excavation at a later date is of little value to anyone attempting to work out the archaeology of a region. Look again at the records of the collections. We find occasional photographs of excellent arrow-heads and a few weird objects, but seldom the exact site from which they came. Once you have tried to work out the very intricate movements and overlappings of the many tribes which inhabited the Mississippi Basin during the past few centuries, you will immediately realize that one must know the exact provenance of every object in he is to be at all successful.

Let me summarize these problems which have to do with that part of archaeological procedure customarily referred to as the "survey": 1) the best way to secure the information as to the location of sites and the pertinent data regarding them; 2) which collections are significant and how they should be described and studied; 3) how sites are to be located and recorded; 4) how our accumulating data can be recorded and filed so that it will not become a mass of unintelligible facts. These are only a few of the problems that the Society must face and solve before their efforts will be of any scientific value.

You will ask at this time, no doubt, "Where does our fun come in? Is it to be all work and no play?" We picture the "romance" of archaeology as pertaining solely to the unearthing of the unexpected. Has this second phase of archaeology - excavation - a place in the program of a state archaeological society? To a considerable extent, YES, but we may as well face the issue at the outset and realize that proper excavation is a highly technical and exacting procedure and should be indulged in only by those who are properly trained and who are willing to take as much pains with a small bit of charcoal or broken sherd as with a whole pot. The proper excavation of a single skeleton may require several days. Once more we can learn from the experience of past workers that insufficient and inaccurate data are little better than none at all, and above all, we must remember that once a site has been excavated it can never be redone - it is lost forever.

With so few trained archaeologists, and so little money to carry on scientific work, occasions will arise in which excavating should be undertaken by a member of the Society in order that the record may be saved. For this reason it is hoped that through the meetings of the Society and through the future issues of this bulletin the fundamentals of proper excavation and recording can be given, to be used, primarily, only in emergencies.

But all the glamor of archaeology is not in excavating. To me, and I believe to every member of the Society, the real thrill comes in carrying on a piece of independent work as carefully and systematically as one is capable of doing. Tracing down an old village site which we have come across in our reading; following out an obscure Indian trail; or tramping over fields looking for surface finds, house pits, earthworks, and mounds; accurately locating and describing these finds; classifying and describing the objects picked up on the surface - all this can be, and is much more, thrilling than toiling in the heat of the sun with a pick and shovel.

It seems to me, then, that the task of the members of the Society is to educate those in their communities to the necessity of preserving their antiquities; to aid the Survey in obtaining accurate and useful information concerning sites and collections; to be ever on the alert for unexpected discoveries in their neighborhood; and to build up and keep alive the interest in our antiquities so that funds can be made available for future careful excavation.

The immediate problem facing the Society is to work out a program which will enable the members properly to carry out their part in the task of unravelling the history of our aboriginal cultures, and to devise a workable system whereby this material can be filed, classified, and made available to the students of prehistory.

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Readers of The Missouri Archaeologist will find the following books profitable reading:

The American Indian, by Clark Wissler (Oxford Univ. Press)
Ancient Americans, by Emily Davis (Henry Holt and Co.)
Archaeology of North America, by Paul S. Martin (Field
Museum of Natural History, Chicago)
Prehistoric Objects Classified and Described, by G.Fowke
(Missouri Historical Society, St. Louis)
The Mound-builders, by H. C. Shetrone (Appleton Co.)
Are We Civilized?, by Robt. H. Lowie (Harcourt Brace and Co.)

WHAT WE OWE TO THE INDIAN

David Ella McAdow

The American people often mark 1492 and the arrival of the white man as the beginning of history on this continent. However, we forget that the Indian tribes of North and South America for centuries before Columbus were inventing things that we have accepted without thought as our own contributions to civilization. One of the greatest gifts that our red men have given us is the different types of foods that we eat every day.

Moses never tasted a hot potato or served a turkey dinner. William the Conqueror never drank a cup of chocolate. Many of our common dishes that we consider necessary to our daily meals would probably not be ours were it not for the Indians. Take a menu that appeared in a downtown restaurant last Sunday and see if you can discover one thing that we do not owe to the Indian.

Tomato Cocktail
Lima Bean Soup

Roast Turkey

Baked Squash
Irish Potatoes

Corn Fritters with
Maple Sauce
Kidney Beans

Alligator Pear Salad

Cornsticks

Fresh Pineapple and Tapioca Pudding

Cocoa

Salted Peanuts, Pecans, Brazil
Nuts

And then finish this off with a cigarette or cigar and a stick of chewing gum!

The Indians of Peru probably contributed more to the American farmer than any other group of Indians. Some years ago at Ancon a tomb was opened. When the explorer had cleared away the drifting sand from the tomb he saw a mummy sitting upright with his knees folded up under his chin and surveying a circle of dinner dishes surrounding him placed there by his friends to feed his spirit on its journey to the next world. Within the dishes were remnants of well-preserved foods: a covered dish of crabs, several ears of dark red corn in a tall jar, two kinds of black beans, and different types of nuts - peanuts among them.

Today the American farmer reaps an enormous profit from the products introduced by the Indian -that is, if the farmer reaps a profit! In 1915 the yearly value of plants cultivated first by the Indians amounted to $3,000,000,000. Since the white man has dominated the New World he has not reduced from the wild stock one single important staple. The Indian has given us forty-five food plants and the turkey. What would we be eating for breakfast, lunch, and dinner if it were not for the Indian?

Food is not, by any means, the only debt we owe to the red man. The Spaniards were fascinated by the queer little balls used by the natives in their games, and they took home a sample. Thus rubber made its appearance on the continent of Europe. Columbus found some white furry stuff growing from the ground and took home specimens. And so cotton was first exported in the year 1493. Each snowy winter we get out our toboggans and snow shoes without once thinking that our Indian friends had them long before Columbus sighted our land.

The wife of a Spanish governor of Peru became ill of malaria on 1683. After all other remedies were exhausted a native cure was attempted, and with her recovery our medicine, quinine, obtained popularity.

Another contribution of the Indian - the cactus plant - has an interesting history. Columbus found the plant and took it to Spain for his friends. Cortes and Pizarro carried it back as a novelty also. From the gardens of Spain it set out on its travels around the Mediterranean to Palestine and Algeria. Unpopular as it has been as a representative of America, it found appreciation in Australia, where the cattle owners use it for boundary marks.

We could count other gifts from the Indians - blazed trails for our roads and highways; sites for many American cities (Kansas City and St. Louis among them); and names for our states (Oklahoma, Missouri, etc.). All of us have read novels about the Indians - those of James Fenimore Cooper, and the excellent story, Laughing Boy, by Oliver La Farge, for example.

We cannot live a day without eating the food the Indians have given us, without using many of their words. We thus have constant evidence of the priceless heritage they have contributed to our civilization.

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DAYBREAK IN AN OSAGE VILLAGE

Audra Brazelton

Where is the boy who has never played Indian?
What Indian?
No, Indians were not all alike - some were farmers, and some hunters; some were warlike, and some peaceful; some wore feathers and some did not; and there were many who knew nothing of chiefs, nor wigwams, nor horses, nor scalping.

What would the boys and girls of southern Missouri be doing today if today were 1800? Such a boy or girl would find himself or herself among the extremely tall Osage Indians. He would probably have been awakened this morning by the voices of his elders and playmates as they observed their religious rites, for the Osage were careful to make supplication each morning to Wakonda (the name given by them to their god), by repeated loud cries, which were begun in a high pitched voice and continued as long as breath permitted, or by prayers for certain things such as assistance in avenging the killing of a relative or a friend by members of another tribe.

Today, perhaps, is the day the tribe starts on its annual buffalo hunt. The women have finished planting their small patches of corn, pumpkins, and beans, and the supply of buffalo meat and hides must be secured, for they need food and materials for clothing.

Everyone is expected to hurry, but the teen-age boys are moving about painfully, although, they are making considerable effort to conceal their stiffness. Yesterday they engaged in a sham battle led by the older boys and under the direction of the old warriors. It was a rougher sport than wrestling, racing, swimming, or jumping. This sham battle had been a real battle - except that no lives were lost. A peace council was held, and the peace pipe smoked, after which a war dance was staged, and each amateur warrior had been given an opportunity to tell of his experiences during the battle and to display his make-believe scalps. In the heart of every one of the boys, no doubt, is the desire to engage in a real battle and to see how practical this phase of his education has been. The older boys are already thinking of marrying some girl - no doubt one who is skillful in making clothing and tents, who willingly gathers and grinds the corn, and who brings great loads of wood to make her father's lodge comfortable. But each boy knows that he can never win such a girl until he has achieved a considerable amount of skill as a hunter and has taken two or three scalps in war.

The work today is rather irksome, for extra provisions have to be stored in the lodges, which will be abandoned until the tribe returns in the fall. The travois has to be packed and fastened to the horse. Such work is particularly distasteful to the warriors, for they consider it "womans work", and among them, as among all people, there are certain things that men just do not do.

"The boys shouldn't be bored by the irksome nature of this work." This remark might have come from an Osage girl in 1800, and have been uttered in the same tone of voice that the white Missouri girl of 1935 uses when she protests against washing dishes three times a day. Other duties of the Osage girls included the making of skin clothing, drying the meat, planting and harvesting the corn and beans, and caring for the younger children.

They are all looking forward to a break in the monotony of camp life, although they realize that their duties as they follow the buffalo will not be light. In the fall they will be eager to return to their village and to their comfortable lodges.

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WHAT IS THE MISSOURI ARCHAEOLOGICAL SOCIETY?

In December a number of people who were known to be interested in the antiquities of Missouri were invited to meet in Columbia for the purpose of organizing a State Archaeological Society. The meeting was attended by representatives of every section of the state and of many walks of life.

An organization was agreed upon, and it adopted as its aims (1) locating every prehistoric site in the state, (2) trying to preserve these remains as state parks and for scientific study, (3) arousing the interest of the public in the value of our antiquities and the importance of preserving as many of them as possible, (4) publishing a bulletin dealing with Missouri Indians and their remains.

The response to this organization was very encouraging. Inquiries began to be received by the Secretary. Thus far a membership of approximately eighty has been built up, and applications are coming in steadily.

This is the first issue of our bulletin - small and unpretentious, to be sure. We want to publish four issues a year; and we hope to increase their size and improve their appearance.

The future of the Society depends upon our holding the members we have and securing new ones. Membership is open to anyone who is in sympathy with the aims of the organization and who will pay $1 a year dues.

Address your inquiries to The Secretary, University of Missouri, Columbia.

NEWS AND NOTES

Mr. J. C. Harrington, Director of Archaeological Field Work, University of Chicago, has been added to the faculty of the University of Missouri for the summer session. He will teach two courses in archaeology and direct the excavations which will be undertaken in the vicinity of Columbia.

Mr. Jay L. B.-Taylor, of Joplin, one of Missouri's most experienced archaeologists and owner of Jacob's Cavern, has withdrawn from the Highway Department to work for the U. S. Forestry Service. He will be stationed at Willow Springs.

The Society has recently investigated a mound near Archie, Mo., which was being excavated for pre-historic remains. The mound, however, proved to be natural, with only a small burial at the top.

Mr. Wrench and Mr. Berry, President and Secretary of the Society, respectively, spoke on Missouri archaeology at Central College, Fayette, on March 18, and at the School of Mines, Rolla, on March 22. Mr. Berry gave an illustrated lecture on Missouri Indians at William Jewell College, Liberty, on Feb. 22.

Mr. B. L. Ross, of Versailles, is working on a county archaeological survey to supplement the work done by Mr. Sutton, who served as county investigator in last fall's campaign.

There has recently been organized the national Society for American Archaeology. Annual dues are $3. The Society will publish a quarterly Journal, which will be sent to all members. Laymen who are in sympathy with the purposes of the organization are invited to join. Information may be obtained from Prof. Brewton Berry, University of Missouri.

Mr. D. K. Greger, Jr., Carrington, has been conducting a survey of the prehistoric sites in Callaway County.

An excellent article on "Stone-Age Men of Crawford County", by Mr. Carl H. Chapman, appeared in the Feb. issue of The Missouri Magazine, published by the Missouri State Chamber of Commerce, Jefferson City.

Mr. Henry Hamilton and Mr. J. B. L. Davis, of Marshall, have valuable collections of Indian artifacts. Each piece is numbered, and a record is kept showing where, when, and under what conditions it was found. Such records add greatly to the scientific value of artifacts.

[illegible]

Dr. J. C. Harrington, Director of Archaeological Field Survey [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] Highway Department [illegible] [illegible]

The Society has recently investigated a mound, [illegible] [illegible], which was being excavated for pre-historic remains. The mound, however, proved to be natural, with only a small burial at the top.

Dr. Morgan and Mr. Hunter, President and Secretary of the Society, respectively, spoke on Missouri archaeology at Central College, Fayette, on March 19, and at the [illegible] [illegible] [illegible]

[illegible] archaeological survey to supplement the work done by Dr. [illegible] [illegible]

[illegible] of the Society [illegible] The Society will publish a quarterly journal, which will be sent to all members. [illegible] the purposes of the organization are invited to join. Information may be obtained from [illegible], University of Missouri.

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Missouri Archaeologist

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  J. C. Patterson, Marshall
  M. D. Wheatley, Kansas City
  J. G. Braecklein, Kansas City
  W. C. Etheridge, Columbia
  G. W. Vossbrink, Maplewood
  W. L. Bradshaw, Columbia
  Russell Nicholas, Marshall
  M. A. Gauldin, Marshall
  Cliff B. Goodwin, Marshall
  Howard Beazley, Marshall

(Continued on inside back cover)

The Oldest Member of the Missouri Archaeological Society

Dr. Franklin W. Bush was born in 1850, half a mile west of Mount Zion, which is located five miles west of Hannibal, Missouri, in Marion County.

Dr. Bush has practiced medicine in Hannibal and vicinity for a period of fifty years. He is now retired and living in the house on the farm where he was born.

He is greatly interested in early Indian occupation of Missouri and for years has had the hobby of gathering the remains and relics of the tribes that once inhabited this section of the state. One of these tribes was the Kickapoos, who lived in the bottoms a few miles northeast of where the farm is situated. Dr. Bush states that he has located nearly one hundred mounds, some of which are very large. From the many ancient village sites that he has discovered he has made his collection of several hundred pieces. In spite of his advanced years Dr. Bush is very active and enjoys keenly searching for relics and discussing the Indians.

--C. A. Shelburne, Center, Mo.

The Youngest Member

Miss Peggy Berry is the five-year-old daughter of the Secretary of the Society, and is herself a full-fledged, dues-paying member. She does not know what "archaeology" means, and could not pronounce it if she did. She became interested in Indians two years ago when, visiting in New Mexico, a little Pueblo boy let her ride his pony. She is now the proud possessor of two projectile points, a Cherokee basket, and three volumes of Indian nature myths.

A Letter of M. Du Tisne to M. De Bienville
November 22, 1719

Monsieur:

I have the great honor of writing you at this moment to beg you to continue your protection of me. You know, Monsieur, that I was obliged to make a trip to the Missourys in which I did not wish to forego the opportunity of visiting the Panioussas (Pawnees) which caused me to make the trip, I had offered to M. De Boisbriant to go into these countries, and he had accepted the offer. It was not done without difficulty, since my servants fell sick on the road; although I remained well. I am sending you herewith a brief account of the journey.

When I reached the Osages I was very well received. After I had explained to them your intentions, they were pleased with that which pertained to them, but when I spoke to them of going to the Panis (Pawnees), they were quite opposed, and in spite of every reason which I urged, they would not consent at all. When I understood that it was on account of the things I carried, I proposed to them to let me go alone, with three guns for myself and my interpreter. And when I was forced to tell them that if they did not consent I would go in spite of them, and that you would be very angry with them, they permitted me to go. Since I knew the character of the savages, I did not delay, but started out at once.

When I reached the Panis, after four days, I was very badly received, as the Osages had made them believe that it was our intention to seize them and make them all slaves. This led to my having the warclub twice raised against me, but when I made them understand the duplicity of the Osages, and made a show of bravery when they attempted to break my head (thus brutal are these savages) they agreed to make an alliance with us, and treated me very well. I traded with them my three guns, powder, some picks, and some knives for two horses and a mule marked with a Spanish brand.

I then proposed that they allow me to go to the Padoucas, to which they were very much opposed, being their mortal enemies. When I saw that I was not able to do it, I asked them about the Spaniards. They told me that they had formerly been to their villages, but that now the Padoucas barred the road. They traded me a very ancient silver cup and told me that it took more than a month to bring it there. One could, it seems to me, bring about an alliance between these people and the Padoucas, and by this means obtain access to the Spaniards. It could be done by returning their slaves and sending them presents. I told them that your intention was that they make an alliance. The trip could be made by the Missoury in going to carry presents to the Panimahas. I have promised M. de Boisbriant that I would go there, and if it is your wish, I am always ready to carry it out in order to merit the honor of your favor.

I have written to the commandant of the Cadodaquious and asked him to send you his opinion. A chief Mento has taken charge of my letters. I met him among the Osages, and he sold me some Natchitoches slaves, and at the time of the sale he showed me that the route to go there from the Osages is South-one-quarter-Southeast. The villages of Mento are seven days southeast of the Osages. He has promised me to come to the Illinois with horses, as also did the Panis, who ought to be here next spring.

As the Osages did not wish to give me a guide to return to the Illinois, I was obliged to travel by my compass, with fourteen horses and a mule. I had the misfortune to lose six horses and a colt, which has caused me a loss of over 900 livres. I refer you to M. de Boisbriant to learn all the troubles I have endured.

I hope, Monsieur, as one of the oldest lieutenants in the country, that you will do me the favor of procuring me a company. I undertake to deserve it by diligence in the service.

I am, with very profound respect, your most humble servant,

Claude Du Tisne

An Editorial from the Columbia Missourian, Mar. 16, 1935

The white man came to Missouri about 200 years ago, but people had "discovered" the place thousands of years before then. Since Marquette's expedition into the Southwest in 1673, historians have kept track of the land we live in today; an organized effort to study Missouri before the white man came started in December, 1934.

The State Archaeological Society came to life last Dec. 8, with two University of Missouri professors, J. E. Wrench and J. Brewton Berry, nursing it through infancy.

Missouri's Indians never mastered the art of writing, but in their village sites, mounds, caves, weapons, pottery and ashes, the Society's explorers read thrilling stories of adventure. They are putting together links of history dug out of caves and mounds, to make a chain of history reaching back to the days of Alexander the Great. They want to know what happened in Boone County while Moses was leading the Hebrews out of the wilderness.

Pseudo-scientists and souvenir collectors hinder the archaeologists at almost every turn. Meddlers have destroyed some of the strongest links in the chain.

The amateur arrowhead hunter usually finds his mound and digs in from the top.... A scientific system of digging can save the evidence for men who know what to do with it.

The State Fair Recognizes Archaeology

At the Missouri State Fair, to be held in Sedalia August 10-17, ribbons will be awarded for the best exhibits of Indian relics. The displays will be a part of the Philatetic Exhibit and Hobby Show, of which Mr. Warren B. Layne, of Fayette, is superintendent.

President Wrench has appointed, as representatives of the Archaeological Society to work with Mr. Layne, Messrs. J. B. L. Davis, of Marshall, and P. A. Devine, of Sedalia. Mr. Davis writes, "I believe we are going to have the largest display of privately owned artifacts that has ever been made in a public exhibit in the state of Missouri."

Those who are interested in entering their collections should communicate with Mr. Layne, at Fayette, who requests that inquiries be accompanied by a stamped, self-addressed envelope. Mr. J. B. L. Davis, Farmers Savings Bank Building, Marshall, will also communicate with interested persons.

All entries must be made not later than August 8. Other rules and regulations governing the display will be found in the State Fair handbook.

Arrangements for the Indian relic display were made too late to have instructions printed in the Fair's handbook. We hope, however, that in the future more space and publicity will be given to this feature, and that archaeology will receive the attention that it deserves at the State Fair.

With the proper direction and supervision this relic display may contribute greatly to the understanding of Missouri archaeology. While the Society is opposed to the commercialization of archaeological materials, it believes that the amateur, by concentrating upon local collections, and by keeping careful, thorough records of where, when, and under what conditions his artifacts were gathered, can render a real service to the cause of archaeology. The exhibit at the Fair will, we trust, also help us in putting the Society before the eyes of the people of the state, showing them what we are doing, and soliciting their support.

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The Society Receives a Gift

Last April the State Archaeological Society received a gift of nineteen volumes of the annual reports of the Bureau of American Ethnology from Miss Juliette A. Owen, of St. Joseph. These had been the property of Miss Owen's sister, Miss Mary Alicia Owen.

The reports of the Bureau of Ethnology are quite valuable, and we take this opportunity to express our gratitude to Miss Owen. The books will be kept in the office of the Secretary until permanent headquarters of the Society are established.

The Schools Can Help

A very ingenious scheme has been devised by Mr. Bane L. Ross, of Versailles, according to which the pupils in the public schools could be enlisted in the study of Missouri archaeology. At the same time, Mr. Ross believes, valuable educational objectives would be accomplished with the pupils participating in the project.

The plan, briefly, which Mr. Ross has written out in some detail, consists in having the pupils in a school undertake a house-to-house canvass for the purpose of locating all Indian remains, relic collections, and other historical data in their community. It would, thus, be somewhat of a continuation of the state-wide survey instituted by Professors Wrench and Berry.

Mr. Ross maintains that his project is based upon modern educational principles. Says he, "It carries out the latest trend in educational thought, namely, the lessening of rigid academic requirements of recitation and the development of the personality of the child. It proceeds from the concrete to the abstract, immediate to remote, and known to unknown." Among the objectives of the project, he says, would be those of developing initiative, self-control, cooperation, the ability to organize material, training in effective written and oral expression. It would "teach the child to recognize the contributions of earlier peoples in the structure of our modern life," and "train the child to take an active part in group and civic life." There are also the scientific objectives of helping to locate and preserve Indian remains, and to help arouse public opinion to the appreciation of our antiquities.

Mr. Ross plans to have the children who are to participate in the project given first of all some background for the appreciation of the work they are undertaking. He would have them read and study the American Indian, his history and his contributions to our civilization. He suggests the possibility of putting on a play or pageant to arouse interest and to gain publicity. The pupils would be taught about the various types of remains in the state, their value and the importance of preserving them and studying them scientifically. With this background, the pupils would go to the homes in their district with blanks on which they would record such information as they could gather as to the location of Indian remains. This information would be made available to the Society in completing its archaeological survey.

We shall follow Mr. Ross' scheme with much interest, and wish him well in putting it into practice.

A Bibliography of Missouri Archaeology

J. E. Wrench

In this and following numbers of the Archaeologist we hope to furnish as complete a bibliography of Missouri archaeology and Missouri Indian tribes as it is possible to find.

Those marked with a star are available at Columbia. Copies of the text will be made for ten cents per page.

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Summer Work in Archaeology at the University of Missouri

The University of Missouri has at last begun to recognize its responsibility for investigating the prehistory of our state. To its summer school faculty has been added an instructor in archaeology in the person of Mr. J. C. Harrington. Mr. Harrington studied anthropology and archaeology at the University of Chicago, where he has been director of archaeological field work.

Mr. Harrington is offering a course in archaeological methods, and has also begun to direct the excavation of an Indian mound south of Columbia.

In preparing for the summer's field work, a group of little mounds belonging to Mr. F. A. Vanlandingham and Mr. Tom Smith had been selected for the purpose. The heavy rains in June, however, made these mounds inaccessible, and the party transferred its operations to a larger mound, owned by Mr. Hopper, five miles south of Columbia, on the McBaine road.

A detailed report of the work will be printed in the next Archaeologist. In the meantime, members of the Society are invited to visit the mound any time during July, and inspect the excavation.

Interesting Excerpts from Letters Received

"Congratulations on the Missouri Archaeologist....It is a practical step in furthering a knowledge of your worth while organization which has long been needed in this state ....If there is any way in which our organization or The Missouri Magazine can help....I assure you we are glad of the privilege."

Marian B. Pickens, Editor
The Missouri Magazine

"I was quite impressed with this little magazine. It is not too pretentious, and yet it is dignified and to the point...I particularly like the section on 'News and Notes' ....The Committee wants to give you every possible encouragement."

Carl E. Guthe, Chairman
Committee on State Archaeological
Surveys, National Research Council

"I am enclosing a check for $17 for seventeen memberships in the society. These cards represent the combined efforts of J. B. L. Davis and myself...Please send me about ten more cards."

Henry W. Hamilton, Marshall

"Best wishes for the continued progress of your undertaking."

W. D. Collier, M. D., Director
Department of Pathology
St. Louis University School of Medicine

"It is a pleasure to become a member of an organization of this nature."

Raymond Rieke, Ironton

"I have used all ten of the cards that you sent me, so

I wish you would send me ten or fifteen more."

H. W. Hamilton

"We have a Geology Club here at school...It is the aim of these boys to collect and preserve rocks, minerals, fossils, Indian relics and the like. One room of the school has been given over to the display of this collection. I would like to know more of your Society. It would be of value to these boys to be-connected with your group."

Professor George Berkemeier
Independence, Missouri

"I am grateful to you for your continued emphasis upon the study of our ancestors, our forefathers, or the former inhabitants of what is now the State of Missouri. I hope you will continue your excellent work."

Walter Williams, President
University of Missouri

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(Continued from inside front cover)

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THE
Missouri Archaeologist

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- L. R. Grinstead, Columbia

(Continued on inside back cover)

More and Better Data

M. R. Harrington

I hold in my hand an exquisite specimen of the flint-chippers art; the form, the curious lengthwise grooves tell me it is no less than a Folsom dart-point, a relic of that distant day when primitive Americans hunted the mammoth and the giant broad-horned bison. But where was the choice specimen found? Alas, nobody knows. It came in an old arrowhead collection gathered here, there and everywhere, without a scrap of data, by a Mr. Soanso, now deceased.

Doubtless the collector himself knew where each treasured piece was found, but when he passed on, this information died with him, and so died also any value the collection might have had for posterity. If he had only marked on the specimen itself the names of the town and the state, we would have had at least an item of information as to the extent of territory occupied by the mysterious hunters of long-extinct beasts. If he had numbered the dart-point, and against that number in his catalogue had written, let us say, "Found in an ash bed in a cut bank ten feet down from the surface with a lot of broken big bones at such and such a place," what a clue we would have had to a very early camp site that might well prove an archaeological treasure house.

If he had photographed the dart-point in place amid the bones of mammoth, extinct bison, camel or ground-sloth, with careful measurements, descriptions, samples of the surrounding ashes and soil, and of the accompanying bones, we would have had a real scientific record of great value in reconstructing the remote ancient history of our country.

Let us start cataloguing our own collections this very day. We may have no Folsoms, but our little collection, provided it is catalogued, will have some value to the world after we depart. And nobody, not even an archaeologist, can expect to live forever.

(Reprinted by permission from American Antiquity, Vol. 1, No. 1, July, 1935. The author is Vice-President of The Society for American Archaeology.)

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Dr. P. F. Titterington, of St. Louis, who is a member of the Missouri Archaeological Society, has written for this first number of American Antiquity an account of some of his excavations, under the title, "Certain Bluff Mounds of Western Jersey County, Illinois."

American Antiquity is a quarterly review published by The Society for American Archaeology. Membership in the Society costs $3.00 a year, and includes a subscription to the review. If you are interested in affiliating with the national organization communicate with the Editor of the Archaeologist.

Archaeology at the State Fair

The July issue of The Archaeologist announced the fact that archaeology would be represented for the first time at the Missouri State Fair, August 10-17. We are now prepared to report to our members the results of the experiment.

The Society was responsible for two separate exhibits. One of these was prepared by Professors Wrench and Berry and was located in the University Building. The other was under the supervision of Mr. J. B. L. Davis, of Marshall, and Mr. P. A. Devine, of Sedalia. It was, of course, unfortunate that our displays had to be so divided; but arrangements for the former had been made months in advance, and the latter exhibit was decided upon at the very last minute.

The exhibit in the University Building contained the following features: (1) a series of photographs illustrating the approved, scientific method of excavating an Indian mound; (2) a panel explaining the origin, purpose, and activities of the Archaeological Society; (3) a panel explaining the purpose and methods of the archaeological survey; and (4) a panel containing a number of archaeological maps of Missouri, showing the results of work done by Houck and other investigators.

The other exhibit, of which Mr. Davis was superintendent, was housed in the Fine Arts Building. The following excerpt from a letter from Mr. Davis best describes the display:

"Thousands of people inspected our exhibit and everyone seemed amazed that we could get together such a large collection of relics. Altogether we had about seven thousand relics on exhibit. I had fine cooperation from the Fair officials, and with the assistance of Mr. and Mrs. P. A. Devine, Mr. Thomas (our policeman), and Miss Ford, we put the exhibit in order in record time. Mr. Thomas came on duty about five o'clock and remained until some of us relieved him in the morning. We did not lose a piece during the Fair. A number of people told me that they thought our exhibit the best on the grounds."

The following collections contributed to the success of the exhibit: Miss Opal Ford, Dr. Robt. Nuckles, Dr. Geo. T. Nuckles, Messrs. Hamilton and Davis, Mr. P. A. Devine, Mr. J. W. Edwards, Mr. R. J. Duerr, Mr. C. H. McGill, Mr. M. A. Johnson, and Mr. W. M. Riecke. Also, Mr. Hugh Collins, of Sedalia, sent his collection of fine bows, arrows, and trophies, which were an interesting part of the exhibit, especially in view of the fact that an old Indian bow was also on display.

The following item from a Sedalia paper completes the story: "The Henry Hamilton and J. B. L. Davis exhibition of Indian relics was awarded first prize at the exhibit of the Missouri Archaeological Society at the State Fair last week. The Hamilton-Davis collection included about 1,700 selected pieces. The great majority of these were found in Saline County."

Our Most Distant Member

One copy of each number of The Missouri Archaeologist must find its way to Kotzebue, Alaska, for that is the home of Mrs. Hallie J. Cordle, who has paid her dollar and become a member of the Society.

You have probably never heard of Kotzebue, but if you will consult your map you will find it up in the northwest corner of Alaska, north of the Arctic Circle. This one little copy of the Missouri Archaeologist undoubtedly has a most interesting journey - several thousands of miles by rail, then a long boat trip, and finally must travel either by dog sled or plane to its destination.

Mrs. Cordle was born in Green City, Mo. She graduated from the Teachers College at Kirksville in 1924, and received her M. A. from the University of Missouri in 1932. She and her husband have traveled extensively. They have circled the world at least once, and have lived in the Philippine Islands, the Malay Peninsula, the Dutch East Indies, and Alaska. One year they lived among the Tlingit Indians of southern Alaska, and are now beginning their third year among the Eskimos of Kotzebue. Mr. Cordle is the government official there.

They are naturally very much interested in anything pertaining to primitive people, and have sent to the University many interesting objects which they have collected in their travels. These collections are on display in Jesse Hall, in Columbia,

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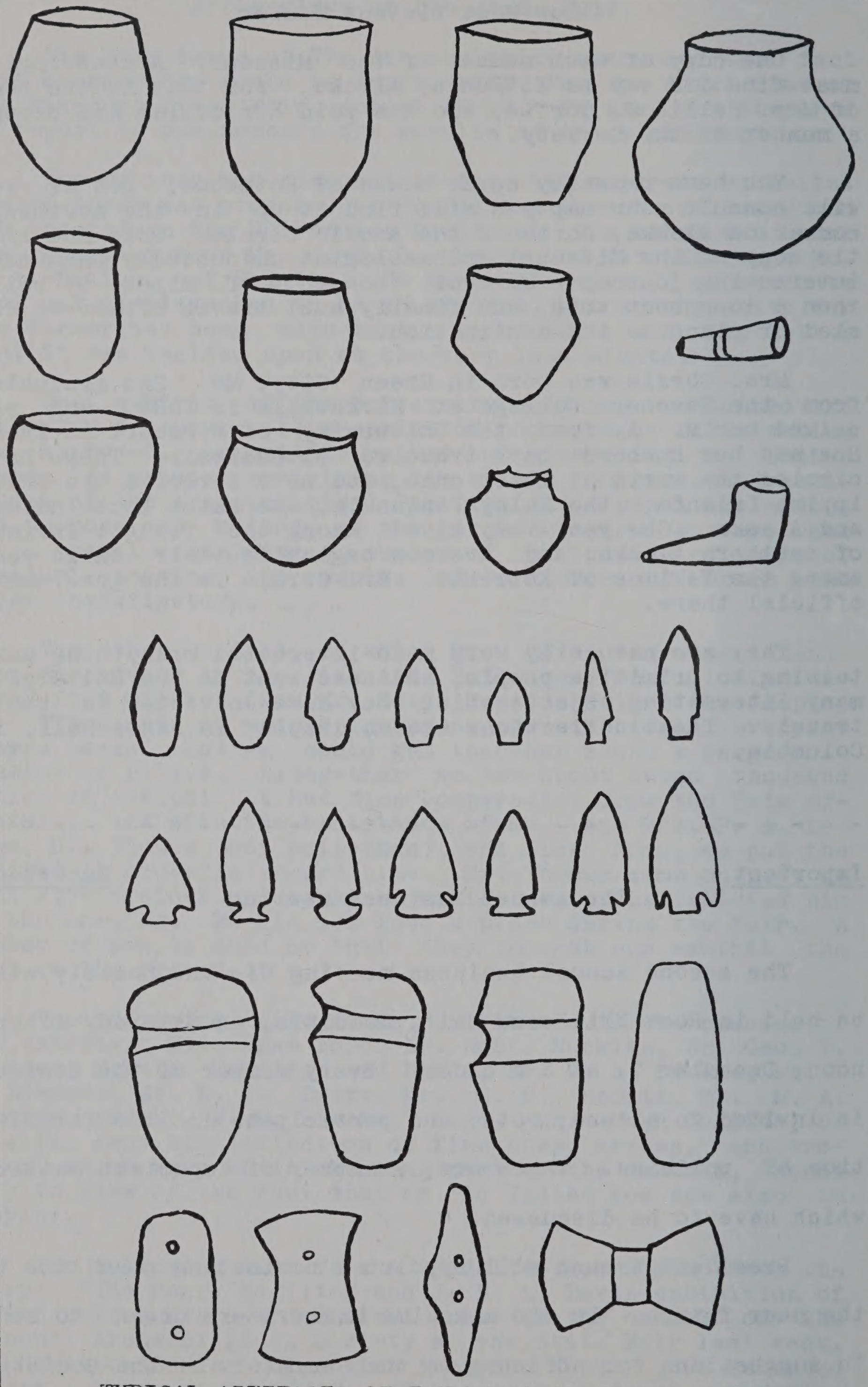
Important Important

The Annual Business Meeting

The second annual business meeting of the Society will be held in Room 311 Jesse Hall, Columbia, on Saturday afternoon, December 7, at 3 o'clock. Every member of the Society is invited to attend, vote, and participate in the formulation of policies. There are a number of important matters which have to be discussed.

President Wrench will appoint a nominating committee in the near future. In the meantime members are urged to send in suggestions for officers to the Secretary of the Society, 311 Jesse Hall, Columbia.



TYPICAL ARTIFACTS OF THE WOODLAND BASIC CULTURE

Light on Missouri Archaeology

In the American Anthropologist for July-September, 1935, there appears an article which sheds considerable light upon the problems of archaeology in Missouri. The article bears the title "Basic Cultures of the Mississippi Valley", and its author is Dr. Thorne Deuel, of the University of Chicago.

Dr. Deuel says that prehistoric sites in the Mississippi Valley show a tendency to group themselves into two large divisions on the basis of artifacts, burials, and the circumstances of occurrence. One of these divisions he calls the Woodland Basic Culture and the other the Mississippi Basic Culture. These basic cultures, he says, are capable of further subdivisions, which, we hope, he will explain at a later date.

The Woodland Basic Culture. Among the characteristics of this group Dr. Deuel lists and describes the following:

(1) Dwellings. Houses were round in section and hemispherical or conical in shape, but rectangular houses were known. Mounds were not used for foundations of houses.

(2) Ornaments. Durable personal ornaments are seldom found. Shells were used for necklaces. Stone gorgets occur.

(3) Burial customs. The dead were buried in highland cemeteries which often developed into mounds. There were few grave offerings.

(4) Stone work. Weapons were made of chipped or polished stone. Projectile points were of large size. Possibly the bow was unknown in the earlier periods. Among the polished types we find the celt, the adze, the gouge, and the grooved axe. Discoidals seem to be generally lacking.

(5) Pottery. Pottery-making was probably general, but was not elaborated nor skillfully fashioned. Grit was commonly employed for tempering. Effigy pots were not made, and handles, flanges, and legs were very rare or entirely lacking.

The Mississippi Basic Culture. In general, this culture was more elaborate than the former. Characteristics include:

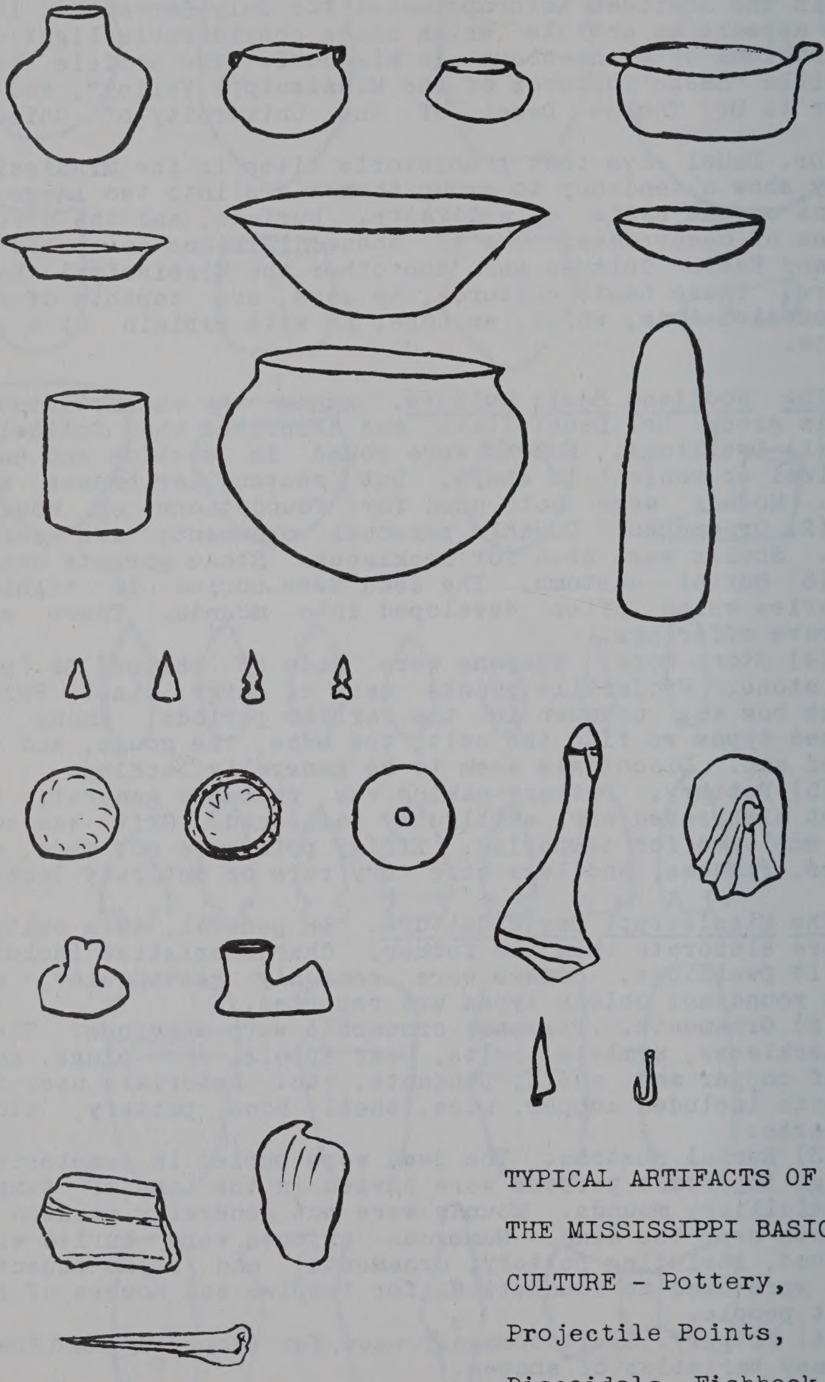
(1) Dwellings. Houses were commonly rectangular, although round and oblong types are reported.

(2) Ornaments. Personal ornaments were numerous. There were necklaces, armlets, belts, ear spools, ear plugs, gorgets of copper and shell, pendants, etc. Materials used for ornaments included copper, mica, shell, bone, pottery, stone and pearls.

(3) Burial customs. The dead were buried in cemeteries, although important persons were buried in the tops of temple and domiciliary mounds. Mounds were not generally erected as monuments over the dead. Numerous objects were buried with the dead, including pottery, ornaments, and stone objects. Mounds were used as foundations for temples and houses of important people.

(4) Pottery. Shell commonly used for tempering, and there were many varieties of shapes.

The accompanying drawings will illustrate the two cultures.



TYPICAL ARTIFACTS OF THE MISSISSIPPI BASIC CULTURE - Pottery, Projectile Points, Discoidals, Fishhook, Bone and Shell Tools

Projects for Public Schools

An earlier number of The Archaeologist discussed a plan proposed by Mr. Bane L. Ross, of Versailles, for enlisting the pupils of the public schools of Missouri in the study of archaeology. We are happy to announce that the plan has been carried forward another step with the publication of the project.

The Missouri Resources Museum, Jefferson City, of which Mr. A. C. Burrill is Curator, has published "A Work Unit in Local Indian History", by Bane L. Ross. It is described as "a project for use in the schools of the state for developing an archaeological and historical study of the American Indian and his ancestors." Accompanying this project is another publication, "The Bridal Cave-An Indian Play", by Mrs. Florence B. Leaver.

All who have the interest of Missouri archaeology at heart will want to congratulate Mr. Ross upon his contribution; and Mr. Burrill also deserves our gratitude for this and his other services to the cause of Missouri prehistory.

We hope that many schools in the state will take advantage of the educational opportunity afforded in these publications. Write to Mr. Burrill, Jefferson City, for copies. Write also to the Secretary of the Archaeological Society for information and assistance, for we earnestly desire to cooperate insofar as our extremely limited time and funds will permit.

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(Continued from Nos. 1 and 2)

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(Cont'd. on page following)

Progress of the Archaeological Survey

In almost any undertaking - business, scientific, or otherwise - the logical first step is to make a survey of the field. Archaeology is by no means an exception. We have continually emphasized the fact, accordingly, that what we need most in Missouri is a thorough archaeological survey of the state. It is with much pleasure, therefore, that we note the rapid strides which we have been making in this matter.

As most of our members know, a great deal of valuable information was collected in 1934 through the assistance of the Relief Commission of Missouri. We had men working in about seventy counties of the state, and in four of those counties very excellent work was done - Crawford, Ralls, Saline, and Macon.

Since 1934, however, the survey has gone ahead for the most part with voluntary assistance.

Recently we have received from Mr. Elmer Smith, of Jackson, Mo., a very good report upon work he has done in Cape Girardeau County. Mr. Richard Brownlee, II, spent a good part of last summer mapping the region in the neighborhood of Brookfield, Mo., and he promises to continue the work during the coming summer.

In Boone County Professors Wrench and Berry have been fortunate in securing the help of four students - Carl Chapman, Weldon Jennings, James Keenan, and Wilbur Seitz. The six of them started in at the northwest corner of the county early in September, and working about twenty hours a week, they have literally covered about sixty square miles. They call upon every inhabitant, and inquire as to the location of Indian remains. They walk down every creek, two on each side, looking for evidences of habitation. They pump every amateur collector for information. They either make photographs or drawings of every collection of artifacts, and record where they came from. Finally, they gather in paper sacks specimens of artifacts and pottery from every village site they find. In their laboratory at the University they have stored away in boxes collections from more than two hundred sites in Boone County alone, and about another hundred from sites in other counties. These collections are going to be of inestimable value to us in deciphering the mystery of prehistoric Missouri.

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(Continued on inside back cover)

UNWISE COLLECTING

During the past several months, one of the largest collections of American archaeological materials ever assembled by a single person has been in the hands of the receiver and offered piecemeal to the highest bidder. It is reported that the collector paid an enormous, almost unbelievable amount for this huge accumulation of artifacts. We hear on numerous occasions he was urged to collect the available data with the specimens, but that he professed to be interested only in the "rocks", and in instances actually destroyed the accompanying catalogues of information relative to the specimens. Finally, we are told, he employed an "expert" to catalogue the materials by the simple expedient of deducing the origin of any given specimen from its appearance. Naturally, not a few spurious pieces are present in the collection.

Consequently, we are not surprised at the report that the present owners entertain hopes of realizing from the present sale, less than half of the purchase value, and that there is considerable doubt that even these hopes will be fulfilled. This gigantic private collection, containing many extraordinary specimens of the most impressive aboriginal workmanship, goes begging for buyers. Not only is there no offer for the entire collection, but apparently no offer to purchase any appreciable portion thereof. The principal buyers appear to be commercially minded dealers, who are after "fine" specimens only.

Why this lack of interest on the part of museums and other large collectors? Much of the collection is practically worthless to the student of archaeology because of the small amount of accurate information on source of materials, and associations, and because much of the available data were obtained from unreliable dealers and untrained "experts". Instead of a storehouse of culture - and history-indicative archaeological materials, the collection falls into the category of a mass of miscellaneous, culturally unidentifiable relics.

The primary reactions of the true student of archaeology to this situation are: (1) What a loss to science is represented in the separating of all these materials from associated information, involving a destruction of valuable data that promises to delay materially, in instances probably frustrate permanently the advance of knowledge; (2) What a poor investment this collector made, following his midguided ambition to build up the most valuable collection of materials illustrating American antiquity ever assembled under one roof.

(Reprinted from American Antiquity, Vol. 1, No. 3, Jan.,1936)

Archaeology at the 1936 State Fair

At the business meeting of the Society in December, it was unanimously agreed that we should continue our activity at the Missouri State Fair. The great interest aroused by last year's exhibits pleased the Fair's officials, who have requested that we undertake a similar venture in 1936. It was the opinion of those who attended the December meeting that the Fair exhibit moreover afforded an excellent opportunity to the Society to advertise its program to the citizens of the state, to attract new members, and to carry out its educational objectives.

President Wrench, accordingly, appointed Mr. J.B.L. Davis chairman of the committee, and to assist him appointed Mr. Henry W. Hamilton and Mr. Thomas P. Bedford. He will appoint others to the committee at some future time.

The following communication from Mr. Hamilton, inasmuch as he is a member of the committee, will be of interest to those who plan to enter the exhibit. While this is not an official announcement from the committee, it reflects the opinions of at least one member, and will serve as a guide to interested collectors.

Editor, The Missouri Archaeologist:

As the State Archaeological Society last year sponsored an exhibit of Indian relics at the State Fair, and from indications so far this year will again sponsor an exhibit of this kind, it seems advisable that a score card for the judging of these exhibits be set up as an indication of policy toward these events, to inform collectors who may wish to exhibit, and as a guide to the persons who may be selected to act as judges.

It is felt that the following four points should be taken into consideration in the judging of collections, and that these points should have about the relative importance indicated by the percentage figures.

50% - Variation in kind and type of artifacts.

As many different kinds and types of objects as possible is desirable; however, there is no purpose in exhibiting too many artifacts of the same type, especially of the more common forms.

20% - Quality of workmanship.

A reasonable number of objects, representing implements of various use, should show a high degree of ability on the part of the workman who fashioned the relic.

15% - Condition of specimens.

While it is true that an artifact of great value from an archaeological standpoint might be broken or otherwise injured, relics that have been found in a better state of preservation, or have been better cared for should receive some credit for being in good condition.

15% - Identification of specimens.
The true archaeologist wants all relics labeled and catalogued, in order to preserve their history. This history should include the immediate locality in which they were found, the county, and the state, and any other possible information. This is a worthy ideal for the Society to strive for, and one to which the collecting public should be educated. However, while this point should receive greater weight than is here given, it is felt that to give it more prominence at this time would be to penalize some collectors who had never until now had this point brought to their attention.

In judging collections, no credit should be given to mountings or arrangements, or designs. While it is conceded that mounting is one of the best ways to show relics effectively, and it has a still greater value in that it is an excellent way to prevent relics from being broken or injured, still the relics themselves are the object of the display.

The judges of the exhibit shall have the authority to inspect closely any items displayed, if there is any question concerning their authenticity. Any object, which in the opinion of the judges is fraudulent and not a true Indian relic, may be barred from the exhibit at the discretion of the judges.

Henry W. Hamilton.

County Archaeological Investigators

At the annual meeting of the Society it was decided that properly qualified persons should be appointed in the various counties of the state to act as local representatives of the Society for the purpose of bringing the attention of people to the organization and of keeping the Society informed of the appearance of Indian relics and sites within the county.

The primary function of the investigator is to develop and encourage a scientific interest in the Indian remains of his county and to assist in keeping a record of these remains.

He should make a list of all those in the county who are now interested in, or are making collections of Indian remains, and encourage them to become members of the Society.

He should endeavor to locate as many sites as possible and report them on blanks to be furnished by the Society.

(Continued on page 5.)

THE USE OF DISCOIDALS

One of our leading collectors of stone artifacts has just recently addressed a letter to me in which he states that the use of the discoidal stones frequently picked up on camp and village sites is still unsolved and that they are still a source of mystery, equal, in fact, to that surrounding the "boat-stones" and similar artifacts. I am taking this method of answering the correspondent and trust that I may be able to set at rest future speculations as to the origin and use of the discoidal.

Early Indian history contains many references to the games indulged in by the various tribes. I could extend the references to the uses of discoidals, or "Chungke stones", through many pages of your magazine. However, I will confine myself to a few of the more accessible works.

James Adair, in his History of the American Indian, London, 1765, gives a minute and graphic account of the "Chungke" game of the southern Indians. He writes:- "The warriors have another favorite game called 'Chungke' which with propriety of language may be called 'Running hard labor'. They have near their state house a square piece of ground, well cleared, and fine sand is carefully strewn over it when requisite, to promote a swifter motion to what they throw along the surface. Only one or two on a side play at this ancient game. They have a stone about two fingers broad at the edge and two spans around. Each party has a pole about eight feet long, smooth and tapering at each end, the points flat. They set off abreast of each other at six yards from the edge of the play ground; then one of them hurls the stone on its edge, in as direct a line as he can, a considerable distance towards the middle of the other end of the square. When they have run a few yards, each darts his pole, anointed with bear's grease, with a proper force, as near as he can guess in proportion to the motion of the stone, that the end may lie close to the same. When this is the case, the person counts one for the game." (Page 402) Further on Adair states, "The hurling stones they use at present were, from time immemorial, rubbed smoothe on the rocks, and with prodigious labor; they are kept, with the strictest religious care, from one generation to another, and are exempt from being buried with the dead. They belong to the town where they are used and are carefully preserved."

Du Pratz, Histoire de la Louisiane, Paris, 1734, page 366. This author states that the "Warriors practice a diversion which is called the game of the pole, at which only two play at a time. Each has a pole about eight feet long, resembling a Roman f, and the game consists in rolling a flat round stone, about three inches in diameter and an inch thick, with the edge somewhat sloping, and throwing the pole in such a manner that when the stone rests, the pole may touch it or be near it. Both antagonists throw their poles at the same time and he whose pole is nearest the stone counts one and has the right of rolling the stone."

Breckenridge, Views of Louisiana, page 256, mentions a game played by the Riccarees with a stone disc or ring.

Lewis and Clark also describe a game common among the Mandans resembling the one above mentioned, which was played with stones of this description. One of Catlan's famous pictures depicts a scene during one of the Mandan games.

Turning now to the early missionaries by whom the ring or disc game has been mentioned many times, I will confine myself to quoting from the Reverend Mr. Finlay, a zealous missionary among the Ohio tribes, and known as "Wyandot Chief". He states that the tribes with which he was acquainted, "played a game with discs of stone, somewhat resembling our game of ten-pins. A smooth and well packed area of earth was selected at one extremity of which a small wooden pin was stuck, while the player stationed himself at the other. The point of the game consisted in striking the pin oftenest in a given number of trials".

The form of the stones suggests the manner in which they were held and thrown, or rather, rolled. The concave sides received the thumb and second finger, the fore finger clasping the periphery.

From personal observation, I could describe a discus game played even today, but, however, the Indians who indulge in the sport employ a disc of hard wood.

Darling K. Greger
St. Louis, Missouri

County Archaeological Investigators
(Continued from page 3)

He should visit, if possible, all those gatherings, such as local fairs, at which Indian remains are exhibited, obtaining photographs or descriptions of such collections and information about the provenance of the pieces.

He should try to discourage amateur digging into Indian mounds and caves; but if that cannot be done, he should try to obtain as complete a description as possible of the finds which are made. Whenever possible he should notify the Secretary so that a scientific representative may be sent to advise in the excavation.

Thus far President Wrench has appointed the following investigators, and others will be appointed in the near future.

Pettis County - P. A. Devine
St. Clair County - J. J. Sullivan
Saline County - Dr. Geo. T. Nuckles
Calloway County - D. K. Greger, Jr.

A Survey of Pettis, Morgan and Cooper Counties

G. D. Housholder

Pettis, Morgan and Cooper counties, Missouri, are three of the richest counties in the state for the archaeologist or for persons interested in the life, habits and work of the prehistoric inhabitants of the state. Not only the mound builders, but many other peoples, over very different periods have flourished in this section.

This is a rich agricultural country, with broad and fertile valleys. The big, muddy Missouri river on the north and the Osage to the south, with their many tributaries, formed a network of creeks and rivers where the bass, crappie and jack salmon were plentiful. These conditions, and the abundance of all kinds of game, made this a very attractive spot for man to make his habitation. Moreover, throughout the region there are numerous deposits of chert, granite and hematite suitable for making axes, celts and other implements.

I have spent about twenty-five years of my life investigating archaeological remains in Missouri, Oklahoma, and Arkansas, and I have found some of the largest village sites in these three counties. On one site in Pettis county I have gathered chert spades, axes, knives of several types, awls and drills, beveled and serrated arrow points, and hammerstones which indicated considerable use. On a nearby site I could find only very crude chipped spades, spears, and celts.

I have located also many mounds, both burial and ceremonial. Most of them have been dug into, but there are many which have never been disturbed. These should be preserved and located for record by the State Archaeological Society. This should be done immediately, for many of these mounds are being cultivated, and before long they will be entirely obliterated.

In Morgan county is located what is probably the largest village site I have ever seen or heard about. It is on a high bluff about a mile and a half long, and half a mile wide. Under a great part of it there is a cave which has been explored but slightly. On this field I found one of the most beautiful banner stones I have ever seen, and the day I visited the site I picked up 368 perfect pieces. Not far distant from this site I found two others, where I picked up awls and drills.

In surveying these various village sites I find that some display much more skill than others, and are characterized by artifacts of superior quality. I also have found evidences to suggest that some of these sites were utilized by peoples possessing different cultures, representing, in all probability, different archaeological periods.

MEXICO - AN ARCHAEOLOGICAL PARADISE

William Denslow

Although Mexican archaeology has no direct bearing on our study of the early inhabitants of Missouri, every true archaeologist is interested in the ancient Mayan and Aztec civilizations of our southern neighbor.

Years before the advent of Christianity wave after wave of civilizations swept down the western side of the continent, finally settling in Mexico and the Central American countries. The first wave is referred to as the Archaic Civilization, of which little is known. Next came the Mayan people who reached the highest point of culture. The third era was known as the Middle Civilization and consisted of Toltec, Zapotec, Mixtec and smaller tribes. The last civilization was founded by the Aztecs who held sway until conquered by the Spaniards in 1521.

Mexico fulfills the dream of every archaeologist. The traces of these ancient civilizations can be found on all sides. Mountains and valleys are covered with temples, courts, tombs, dwellings, and the typical pyramids that are the outstanding structures of every major ruin. The greater part of them are unexplored while thousands yet remain to be discovered. Artifacts can easily be found and consist mostly of clay effigies, pottery, stone idols (many of which are of jade and semi-precious stones) and a great number of ceremonial pieces that are quite strange to us who are more intimately acquainted with the North American Indian. Arrows, spears, and knives almost without exception are made from obsidian. Although relics can be found in amazing quantities, most of them are broken. The cause of this is the religious custom which dictated that at the end of their calendar cycle (52 years) all personal and household objects should be broken and thrown away.

At the present day, language forms a barrier to the student of archaeology. Working around the more civilized parts he can get by on a workable knowledge of Spanish, but he must remember that there are some fifty-seven different languages spoken in Mexico, the greater part of them consisting of Aztec, Otomi, Mixtec, and their different dialects. One encounters these languages when once off the beaten path and they present great difficulties, expecially when you don't know enough even to ask for a drink of water. The unfrequented parts are almost as primitive today as they were hundreds of years ago, with the natives still worshiping idols, speaking the same language, raising the same crops by the primitive methods of agriculture, and wearing the same type of clothes.

However, one does not have to do extensive traveling to reach most of the ruins. By making his headquarters at Mexico City he has access to a great number of the more famous ruins which are within half a day's journey from the city. The most-visited ruins are the pyramids of Teotihuacan, but a few miles west of the city. In the main, they consist of two large pyramids and a temple, the Pyramid of the Sun being larger than those in Egypt. To the north, on the outskirts of the city, we find the interesting ruins of Tenayuca where five civilizations have built their pyramids, one on top of another. Crossing the mountain range to the south we come upon the extensive ruins of Xochaicalco and the smaller temple of Teopanzolco. The most interesting excursion in this vicinity is a visit tc the famous temple of Tepotzlan. Being situated high on the mountain range to the south of Mexico City, it is inaccessible except by foot and the visitor must take a train to the nearest point and then depend on his feet from there on. It is a difficult climb and a day must be alloted to it, but it is well worth the while.

If one wishes to lengthen his trips, then a visit to Oaxaca, some 300 miles south of Mexico City, is well worth the while. In the vicinity of Oaxaca we have both the ruins of Mitla and Monte Alban. Mitla is known for its remarkably well preserved mosaic walls, its subterranean tombs, and large monoliths. Excavations at Monte Alban are recent, but already they have unearthed the famous jewels of Monte Alban and no doubt more discoveries are soon to follow. The ne plus ultra of a Mexican archaeology study is a trip to Merida, Yucatan, where are located the remains of the highest peak of Mayan civilization - Chichen Itza.

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Contributors

Mr. Darling K. Greger is Librarian of the St. Louis Academy of Science, and is engaged in research work in palaeontology at Washington University.

Mr. G.D. Housholder is a member of the Society and lives in Sedalia.

Mr. William Denslow is from Trenton. He is a student at the University of Missouri. He spent some time last summer in Mexico.

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Notes

"Primitive Man in Phelps County", by J. W. Ruwwe, a member of the Society, appeared in the January, 1936, number of The Missouri Magazine.

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C. H. Yoachum, Billings
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C. E. Barkshire, Columbia

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W. H. Chapman, Steelville
T. E. Clay, Lupus
Robert Coghill, Rolla
Carl Collins, Kansas City
Ordra Cooper, Glasgow
Mrs. Wendell Cordle,
Kotzebue, Alaska
J. E. Coulter, Mt. Leonard
W. H. Coulter, Wheatland
Mrs. J. J. Crews, Mexico
Buster Crick, Malta Bend
W. C. Curtis, Columbia
J. L. Davis, New Boston
Tom Davis, Center
J. W. Dempsey, St. Louis
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P. A. Devine, Sedalia
Mrs. O. W. Dickman, St. Louis
F. T. H'Doubler, Springfield
R. J. Duerr, Clinton
F. A. Dunnagan, St. Louis
I. G. Dyer, Marshall
L. W. Van Dyke, Marshall
J. A. Eichenberger, Hannibal
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Walton Fowler, Jr., Lexington
William Froeschner, St. Louis
Mac Gardner, Unionville
Alva Gauldin, Malta Bend

(Continued on inside back cover.)

AMERICA BEFORE COLUMBUS

by

Dr. H. J. Spinden

Curator of Prehistoric and Primitive Art, Brooklyn Institute of Arts and Sciences

If the American Indians had not been living on cultivated crops in most parts of the New World, and if they had not already reached an urban civilization in tropical parts of America before Columbus landed on these western shores, the difference to the European nations who proceeded to conquer the New World would have been very great indeed. They would have found a land rich in natural resources but with none of its plants and animals domesticated. They would have been forced to live on game and wild fruits until such time as they could bring in the domestic plants and animals of the Old World. Their situation would have been like that of England in Australia, for in this southern land the lowly natives had developed none of the indigenous sources of food beyond the hunting and fishing stage. The English colonists had to import all domestic crops, both plant and animal, to assure themselves of food before they even could get started.

But in America the Indians had long since won from the wild a most important series of food plants, including maize, beans, potatoes, sweet potatoes, tomatoes and a long list of other valuable foods as well as other plants having industrial uses. These almost immediately became common property around the world and today in the United States the American series of domesticated economic plants makes up well over half of our agricultural wealth.

Now the people who had developed this permanent contribution to world wealth attained in Mexico, Central America and the Andean regions of South America to a high political status, with extensive kingdoms of theocratic type, that is, their rulers were gods or the spokesmen of gods. They had stone-built cities, high expressions of art in architecture, sculpture, metal working and textiles. The Mayas of Yucatan carried astronomy and mathematics to an advanced stage and also invented a kind of hieroglyphic writing which scientists are now attempting to decipher with some slight success. It is perhaps unfortunate that these nations accomplished so little in military science, for the most cultured peoples of America were soon overwhelmed by gunpowder and cold steel. It is not my purpose to draw a moral from the easy conquest of the Aztecs and the Incas by the mailed soldiers of Cortes and Pizarro. Of course, there was no ethical justification for this conquest. But within four hundred years the flag of Spain was again expelled from America and today we see the peculiar genius of the red man imparting flavor and distinction to national life in modern Mexico and modern Peru.

The American Indian is racially related to the tribes of Siberia, and his ancestral culture seems to have been planted in the regions of Lake Baikal and the headwaters of the Yenessei and the Lena Rivers on the southern edge of Siberia somewhere between 2500 and 2000 B. C. This ancestral culture was that of men who hunted and fished in a land of forests and streams. They used polished stone axes of jade and other tough stones, harpoons with detachable bone points, bows and arrows, canoes and paddles, clothing made of sewn skins, baskets, nets, and occasionally made pottery. This culture, which we call Neolithic or New Stone after the polished axe, may have had its beginnings in the Baltic and Scandinavian countries. As the glaciers of the last ice age retreated, forests reoccupied most of the empty land and man entering these forests was able to take up his residence in more and more northerly regions. But, of course, he needed some form of axe in such a forest environment, and it seems he first used parts of reindeer horns for handle and blade as well. On the basis of archaeological remains of pre-Neolithic and then of the Neolithic types it has been possible to establish successive northern frontiers of human occupation, first in Germany, then in Denmark and finally in Sweden and Finland.

Now the only available road to the New World lay across the narrow Bering Strait from East Cape in Asia to Cape Prince of Wales in Alaska. This road was located almost precisely at the Arctic Circle and of course it was not revealed till man had pushed his residence well beyond the peninsula of Kamchatka. According to the modern deflated chronology of north European and north Asiatic archaeology, the date of the first coming of the red man to America was about 2000 B. C. There is, however, a vociferous American school who would like to have man in America at a much earlier time, say 10,000 B.C., or even 20,000 B.C. if it were possible. The reply which must be made to these is that arctic conditions were still an insuperable barrier at this time and that, furthermore, man in the Old World had not yet attained to the minimum stage of culture disclosed in all parts of America by the most primitive archaeological remains.

No example of men of lower type than the present universal species which we call Homo sapiens has been discovered in America. Indeed this higher type of human being did not appear in the Old World till the last ice sheet was at its most southern stage, and it took him thousands of years, while the ice was retreating northward, to develop the tools and weapons which became the common heritage of the first American immigrants. Yet it is quite possible that man arrived in what is now territory of our United States, while some large animals now extinct were still living. Fine flint blades, of a peculiar type designed apparently for buffalo lances, have been found in the western plains in association with an extinct and partly fossilized variety of the American bison. Bones of the great ground sloth, and also of camels have been reported in association with fireplaces and other evidences of man's presence. Some have even thought that there were still mammoth in this land when the red man first arrived.

At any rate what a marvelous discovery it was: men, women and children streaming over into Alaska from the easternmost cape of Asia - ascending the Yukon, crossing through the valleys of the Rocky Mountains, following the ranges south with illimitable plains of grass on the eastern horizon. Game was awaiting them, herds of buffalo and antelope, gardens of edible roots and edible fruits. All they had to do was stream in and occupy, bringing with them their kit of simple tools, their simple arts and ceremonies, their simple form of government, which nevertheless contained the germs of social cooperations.

Mountain ranges are always the easiest natural roads for animal migrations, and man in America followed the Rockies and the Andes down to Tierra del Fuego. Seacoasts are next, and the Eskimo with a typical seacoast culture followed the shores from Alaska to Greenland. Streams lead through forests and are a third favorite road of primitive man.

Finally the two empty continents were peopled, the weakest tribes being forced into the less desirable regions. Then the more progressive societies attacked the food problem in a practical fashion. They found that by planting seed and spreading water on desert land one could raise crops. So maize was domesticated and soon afterwards beans and other plants. There were few animals to tame for meat diet, but the turkey was tamed and the muskovy duck and besides there were dogs and guinea pigs. Other plants were domesticated for economic uses, including cotton, which now supplies our mills. Tobacco was cultivated as the great medicine capable of inducing a philosophical state of mind. Rubber was manufactured into waterproof capes, into balls for spectacular games, into dolls and was even burned to make black, storm-cloud incense.

Out of the use of leisure saved from the pursuit of food the American Indian nations found they could support kings, priests and artists and build lofty temples on pyramids to satisfy their glory complex.

In the order of development of their civilization there was first the nomadic stage of the first immigrants. Such hunting and fishing tribes survive even today in the marginal areas of the far north and the far south. Next the stage of the archaic civilization was developed in arid lands by the first farmers. They delved and spun and made pottery. Thirdly, came the stage of the great wet land cultures, with the Mayas in the van. These began shortly before the time of Christ to show the way to most of the higher arts. But they had no metals, and carved with stone tools. The First Empire of the Mayas closed about 630 A.D. but the influences spread farther and farther afield. It seems there were cultural connections between Central America and Peru in the sixth century A.D. but the influences spread further in the twelfth century, when the Toltecs were in the ascendency. At this time gold and other metals were introduced from South America and metal working was rapidly improved. The rule of the Aztecs in Mexico and the Incas in Peru goes back to about the beginning of the fourteenth century. In the United States area there was a succession of arts, found on several archaeological levels in the Southwestern states where the Cliff Dwellers lived and also in the valley of the Mississippi and Ohio Rivers, where the Mound Builders flourished shortly before the discovery of America by Columbus.

And then came the white man with no inhibitions against seizing land and wealth. In a short generation the grandeur that had been Mexico was no more. The daughters of the sun, who wove the finest textiles of the world in Peru, were paying tribute of their handiwork to be sold in the markets of Europe.

But even today and in our own United States the Indian comes back, irrepressible, with arts and illusions in his hands to enrich the new American civilizations.

(Reprinted from the Scientific Monthly, by permission)

* *

The Second Spring Meeting

On Saturday, April 18, the second spring meeting of the Society was held at the Tiger Hotel, in Columbia. Approximately seventy-five people were in attendance. Some had driven no little distance. Mr. Graf and Mr. Swift were there from Christian county, and Mr. Morrison came from Cape Girardeau. Everyone agreed that the meeting was most successful. As a matter of fact, many members urged that similar conferences be held in the more distant corners of the state, and possibly next fall will see the inauguration of regional archaeological conferences in several cities.

Following is a list of the speakers and their subjects:
Franklin Fenenga, "The Ancient Buried City";
Dr. P. F. Titterington, "Flints";
J. B. L. Davis, "The State Fair Exhibit";
B. L. Ross, "Missouri Prehistory in the Public Schools";
C. G. Morrison, "Pottery of Southeast Missouri";
J. A. Eichenberger, "Classification of Projectile Points", Illustrated with drawings;
Henry W. Hamilton, "The Missouri Village";
Sam Leath, "The Value of Archaeology";
Dr. J. B. Berry, "Mound Explorations", Illustrated.

Tables and show cases were provided for those who brought articles from their collections, and approximately twenty-five persons brought artifacts.

* *

NOTICE

Dr. Berry, secretary of the Society and editor of the Archaeologist, will leave Missouri for a three months' trip to Europe the first of June. Members will please address urgent correspondence to Prof. J. E. Wrench, Columbia.

MOUNDS ON CHARITON RIVER IN MACON COUNTY

Richard Brownlee

In the history of archaeological research done in the State of Missouri, the northern counties have been sadly neglected. Little mention has been given to the tributaries of the Missouri River found in the section. Chariton River and its valley, running through Chariton, Macon, Adair, and Schuyler counties, is perhaps one of the few outlets into Iowa and the Northern States. The river itself is little, but on both sides of it there are wide flood plains. These flood plains, affording excellent hunting, as reported by early historians, made of the river in prehistoric times an ideal pathway of migration into the North. It is by this theory of early man's moving, camping, and hunting in these valleys, that the origin of the mound sites of Chariton River is explained.

Through Macon County the Chariton River follows an approximately straight course. On the west side of the river are the groups of mounds, and on the east side are large flat lands that were originally covered with dense timber. Is it little wonder that prehistoric man chose these hills for the burial of his dead and for his camp sites? On these densely wooded bluffs early man found security from hunger and storms, and refuge from his enemies. It is, then, along the western hills, excepting a few valley sites, that we find the remains of a primitive civilization.

In Macon County the mounds are found in groups varying from three or four to ten or fifteen. They range in size from fifteen to ninety feet in circumference, and are from two to eight feet in height. The most important factor seems to be that nearly all of them are burial mounds. From this we infer that hundreds of people spent their lives and died within the confines of a few dozen miles. The burials are not placed as in the stone vault type, although rare cases have been reported in which a kind of vault was found around the body. It seems, in general, that the body was laid out flat upon the surface of the earth with a few simple weapons about it, and then rocks of various sizes heaped upon it. Throughout the mounds are found rocks of irregular shapes, but no apparent order in their arrangement was kept. There are only a few scattered potsherds and these are grit tempered, of the Woodland type. Perhaps the mounds were never heaped, or their present low elevation may be the result of erosion and are now of small size. Skeletons are found from a few inches to a foot or two beneath the surface of the mound top. All of the burials are in the center of the mound, and this fact, coupled with that of shallow depth, has caused many of them to be plundered by amateur collectors and by farmers. In almost all cases the mounds run in long straight lines along the first and second ridges of the bluffs.

The articles found in and about the mounds do not vary greatly, but many types of worked stone implements and weapons are uncovered. It is interesting to note that numerous pestles are found but that few mortars are ever brought to light. In the mounds are found the following objects: polished dark granite celts, white and pink flint projectile points, small hematite celts, tiny bird projectile points, strange four-sided ceremonial stones, and many pieces of fossil crinoid stem that were evidently used as beads. The arrow points are generally large and of rather poor workmanship, but occasionally a very fine piece of stone work is found. In the vicinity of the mounds perfect grooved axe heads are found. These are extremely well preserved and show a great deal of painstaking work. They are of the polished type and are generally made of a greenish or an ordinary brown weathered granite. They range in size from a few ounces to four or five pounds.

In the mound body, away from the burial center, the following objects are found: heavy clam shells, evidently having been brought from some large river, crinoid stems, and in some locations flint chips are widely scattered through the mound.

As to the age of the mounds, no one can accurately guess. The oldest settlers only know that they have always been a relic of the history of Macon County. A great deal of superstition is connected with them, and this with the present type of bad roads has kept them more or less a mystery to the people. The only information from historical sources is found in the "Jesuit Relations". These letters and maps were the possessions of the Spanish, French, and American governments that once ruled Missouri. From one of these sources, dated 1673, it is said the Ponca and Omaha tribes hunted and explored as far west as the Osage River. They then migrated to the North, apparently going up the Chariton River. As they passed northward they camped from place to place, moving only when game grew scarce. This record may or may not be true, but Chariton River Valley is, I believe, the prehistoric trail between the northern and southern sections of early man's domain in Missouri. Because of this a wonderful field of scientific investigation is open to archaeologists.

Truly the misty bluffs of the river can be said to hold the secrets of a thousand years of man's struggle for life. Even though he may have been a crude and savage creature, this Northern country was his, and he depended upon it for his living, much as the people of today do. What sort of a person built the Chariton mounds, and where did he come from? What were his social and religious customs? How did he he hunt? These and a hundred other questions may be answered when the long lines of mounds, covered by century-old oak and hickory trees, give up their secrets. Chariton River, the gateway into the North, is waiting for the archaeologist, and the work he could accomplish would mean the unfolding of a new but very ancient page in Missouri history.

RULES FOR STATE FAIR ARCHAEOLOGICAL EXHIBIT

1. No entry fee in this department.
2. All entries must reach the Superintendent not later than August 20th.
3. All entries sent by parcel post or express must be prepaid.
4. Indian relics or pottery sent by parcel post or express should be well packed and insured.
5. If protection is desired by the exhibitor beyond that offered by the usual police or guards provided by the Missouri State Fair, the exhibitor should take out the necessary insurance covering the exhibit. Additional information pertaining to this may be secured from the Superintendent.
6. Articles entered for exhibit shall not be removed except upon the presentation of the property check, and no article can be removed until 4 p.m., August 29th.
7. Articles mailed will be packed by competent packers for returning with the express collect unless owners make other arrangements.
8. The Missouri State Fair will not be responsible for any exhibit not called for or arrangements made for shipment after August 29th.
9. Judging will be based upon: (1) The condition and age of relics. (2) Archaeological value. (3) Workmanship. (4) The record kept by the owner relative to the location and conditions under which the relics were found. This may either be done by using a catalog with corresponding numbers in India ink on the relics, or by writing the county, state, and immediate location where the relic was found on the relic itself. Exhibit to be at the Varied Industries Building.

PRIZES

First prize: Twenty-five piece framed collection of fine Indian relics including a pipe, axe, etc. Second prize: Fifteen piece framed collection. Third prize: Ten piece collection of assorted perfect pieces. A blue ribbon will be given as first prize for the best collection from each county.

The aims of the Archaeological Society are (1) to preserve the remains of the prehistoric peoples of Missouri, (2) to study these remains scientifically, (3) to publish information about them, (4) to provide amateurs and professional archaeologists with opportunities to discuss their common interests, and (5) to arouse public opinion to the appreciation of Missouri's antiquities. The purpose of this exhibit is to bring before the public archaeological finds and discoveries that are being made by the people throughout the State of Missouri and to arouse appreciation in prehistoric life.

Superintendent - J.B.L.Davis, Marshall
Judges - Thomas Bedford, Fayette
Henry W. Hamilton, Marshall

Introducing Our Officers

Mr. R. G. Beezley, one of the trustees of the Society, was born on a farm near Steelville, Mo., in 1881. He was educated in rural schools and at the Steelville Normal and Business College. He then spent a number of years in several walks of business, including farming, merçantile, and automobile. For the past thirteen years he has been Postmaster at Steelville.

He has been interested in Indian relics since boyhood. He has a collection of about two thousand relics, ninety per cent of which he gathered in Crawford county. Both he and his wife are keenly interested in archaeology.

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Mr. A. H. Burress, of Amity, is also a trustee of the Society. He is a minister and an evangelist, and has often combined his archaeological activities with his evangelistic travels.

He became interested in archaeology, and began making a collection of relics, in 1896. Mr. Burress says, "I knew nothing about other collections, or archaeology, or books written on the subject; but it just gave me a thrill to pick up something that had been made and lost by a man hundreds, or maybe thousands of years before, and knowing that no human hand had touched it from that time until I had picked it up." Mr. Burress began reading what he could find on archaeology. He says that among the first books he read were W. K. Moorhead's "The Stone Age in North America," and The Handbook of American Indians. These led him on into a vast field of archaeological literature. He also became acquainted with Mr. Moorhead, whom he had the honor to entertain in Amity a year ago. On the occasion of that visit Mr. Moorhead recognized a Folsom point in Mr. Burress' collection, but it had been a surface find and was, consequently, of no great significance.

During the past thirty years Mr. Burress has devoted much time to the location of prehistoric remains in the counties of Carroll, Clinton, De Kalb, Daviess, Grundy, and Ray.

* *

NOTES

A course on The American Indian will be given at the summer session of the University of Missouri this summer. The instructor will be Prof. Maurice A. Mook, Assistant Professor of Anthropology, Ohio Wesleyan University. Prof. Mook has had field experience among the Indians of the Southwest and has been a member of the archaeological field party of the University of Chicago.

MEMBERS OF THE STATE ARCHAEOLOGICAL SOCIETY
(Continued from inside front cover.)

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THE

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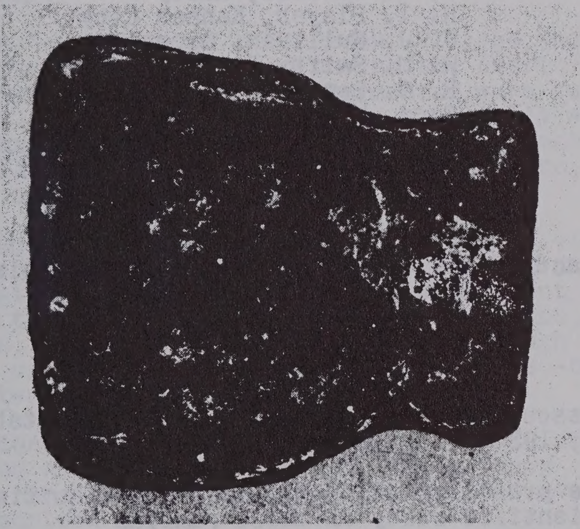

Copper Axe Found in Boone County

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The State Archaeological Society of Missouri

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D. K. Greger, St. Louis
Will Hall, St. Louis

Secretary, and Editor of The Missouri Archaeologist
J. Brewton Berry, Columbia

The Missouri Archaeological Society was established in December, 1934. It has as its aims:

1. The preservation of Missouri's antiquities
2. Scientific study of these remains
3. Publication of information about Missouri Indians
4. Development of public appreciation for Missouri's ancient remains
5. To provide professional and amateur archaeologists an opportunity to discuss their common interests and to cooperate in deciphering the prehistoric past.

It invites anyone to membership who is sympathetic with the above aims. Inquiries should be addressed to the secretary.

FLINT QUARRIES

P. F. Titterington

Dr. W. H. Holmes in Bulletin No. 60 of the Bureau of American Ethnology describes several flint quarries. Mr. Gerard Fowke investigated some of them for him, and it was my privilege to visit the three in Union County, Illinois, and one in St. Louis County, Missouri, with Mr. Fowke in 1930.

In Union County, there are two quarries of nodular flint and one of a stratified flint within a radius of fifteen miles. One of the former is known as the Mill Creek Quarry and the following description is taken from Dr. Holmes' report:

"In the vicinity of Mill Creek Village and extending over into Alexander County on the south, chert concretions weathered out of the limestone formation were quarried on a large scale. These concretions were especially well suited, on account of their size and shape, for the manufacture of agricultural implements. Upon a broken surface, the chert is seen to be coarse grained and tan in color.

"The superficial limestone strata in this vicinity have undergone complete disintegration by the action of acid-charged waters. In places, the clay is twenty-five feet thick and the chert concretions, not being subject to disintegration, are distributed irregularly through it; sparsely in the upper twenty feet and in numbers between the twenty to twenty-five foot level.

"The concretions are a flattened lens in shape and are often joined by irregular necks. They vary from a few inches to rarely two feet in length - the average being eight to fourteen inches.

"The ancient pits from which they were mined are found in several groups or clusters on the hills and slopes. At present, they are represented by bowl-shaped or oblong depressions a few feet to over forty feet in diameter. A trench through some of the pits showed them to contain quarry implements and shop refuse in the disturbed clay. The area between the pits was composed of compact clay with numerous concretions at the lower levels. Some of the pits were tunneled at the bottom.

"The quarry implements were composed of crude hoes showing polish from digging, and paddle-shaped or club-like tools made from oblong chert concretions for prying and tapping.

"The workshops are circular in form as if accumulated in and about lodge sites. The hammers used were roundish nodules or chipped pieces of touch chert. The refuse showed the shaping work to be directed largely toward the roughing out of implements of several classes:

1. Spades and hoes 3" - 18" long and 2" - 7" wide oval to triangular in shape.
2. Notched hoes.
3. Chisel, adz, and celt types.
4. Slender blades for knives, scrapers, and projectile points.

"The manufacture of agricultural implements predominated.

"In the refuse, several abrading stones wer found. It is thought that they were used to grind along the margins of the primary chipping to facilitate the secondary chipping which was probably done with small hammers made from the bases of deer antlers."

The other quarry of nodular flint is a hornstone and is located a short distance from Cobden. It is upon a ridge and the nodules are oval or spherical in shape, and range from one to six inches in diameter; occasionally, one somewhat larger is found. A number were picked up along the ridge and a number were seen imbedded in a ledge of limestone at the base of the ridge. Some of the pits were located, and it is reported that upon investigation they were similar to those at the Mill Creek Quarry.

A sharp blow of the hammer will usually split the nodules in two. The fractured surface shows a bluish-black, fine-grained, hard, compact flint in which there are concentric circles of a lighter color. Around the outer side, the weathered surface is seen to be from one-eighth to one inch thick, depending upon the size of the spall.

The quarry of stratified flint is a navoculite, and is known locally as the Kahlein Quarry. It is also a short distance from Cobden and is found in a layer several feet thick at the base of a small group of ridges. The most desirable material is in the lowermost foot of the layer and is very hard, compact, and semi-translucent. It is mostly white in color, but there is a considerable quantity in different shades of pink and red, and occasionally a purple mixed in with the white.

The artifacts from these three quarries make an interesting study. In the agricultural implements made of the Mill Creek material, both the primary and secondary chipping can be readily distinguished and, as a rule, one or more small areas of the outside weathered surface of the spall remains on one side of the piece. Most of these implements are somewhat curved from top to bottom. This may have been intentional because, granting that they were attached to handles and used as we use a hoe today, the curve would cause the cutting edge to strike the ground at a more serviceable angle. The bits show varying degrees of polish from use and quite often show evidences of resharpening. Occasionally, a notched hoe is found in which there is very little of the blade remaining below the notches. This is thought to indicate extensive use and numerous resharpenings.

The hornstone was used almost entirely in making arrowheads and knives. Sometimes a portion of the weathered surface of the spall will be found on one or both ends of the piece. There is one leaf-shaped knife in particular that is eight and one-fourth inches long in which all of the weathered surface of the spall has been left on the base. This accounts for one inch of the length of the piece.

The Kahlein Quarry produced a very fine material and it is frequently found in artifacts of exceptional workmanship. The brilliantly colored portions must have been highly prized because they are found made up into hoes, chisels and spuds representing the height of the flint-chipping art in this district. Some of the commoner uses for the material were the making of projectile points and agricultural implements.

In referring to Bulletin 60 again, we find that Dr. Holmes has the following to say about the Crescent Quarry in St. Louis County, Missouri:

"In 1915, Mr. Gerard Fowke made a superficial survey of this quarry for the Bureau of American Ethnology.

"The ridge with its windings and spurs has a general southeast direction, and the slopes everywhere are covered by large amounts of debris. It has been studied for a distance of seven miles to the south, and throughout this distance the hillsides are scarred with pits most of which are near the bottom of the deposit.

"The upper layers are porous from the weathering out of fossils and are not always suitable for chipping. At the extreme bottom of the deposit, there is a foot or more of a very fine-grained, compact stone which has the texture, color and chipping qualities of chalcedony. After long exposure, the color is a chalky white, but none of the hardness and fineness of grain are lost. Occasionally, it weathers into various red or yellow shades, but principally to the white.

"The most remarkable feature is the extreme thickness of the deposit. In at least one place it is seventy-five feet from the crest of the ridge to the lowest flint level. At this point is the most extensive quarrying, the digging being done at three levels, chiefly at the base on a ledge of limestone. Judging from the amount of refuse on the hillside below, a very large amount of material has been moved to reach the flint of desirable flaking qualities.

"This flint enjoyed a very extensive use within a radius of fifty miles of the quarry; and extensive workshops are found on top of the ridge, especially near the village of Crescent."

Mr. Fowke, on several occasions, tried to locate two other quarries in Missouri but without success. In studying numerous collections, he noted a large number of artifacts made of a black and grayish-white, irregularly-striped flint most of which came from Osage County. The same observation was made on artifacts composed of a material that is a mottled red in various shades quite frequently mixed with a small amount of black. The number of specimens of these two materials decreased in a direct proportion as to the distance from the counties named. These observations led him to believe that the one quarry was in Osage County and that the other was in Calloway County, but he was never able to locate them definitely.

In a study of the artifacts made of the flint from the Missouri Quarries, it is found that projectile points, spears, and knives predominate. Occasionally, an agricultural implement is made of the Crescent Quarry material.

The most desirable of the Crescent flint was the very hard, compact, chalky-white material that is known locally as the lower strata Crescent. Some of the softer flint above the lower strata was usable. It is a rather porous, dingy flint that is slightly cream-colored and is known locally as the upper strata Crescent. This is the largest known quarry in this district, and tons of material must have been taken from it as evidenced by the extensive workshops and the wide distribution of artifacts made from it.

The Annual Business Meeting

The third annual business meeting of the Society was held in Jesse Hall, Columbia, on the afternoon of December 5. There was a good representation of members from Rolla, Marshall, St. Louis, Columbia, Fayette, and Fulton.

The officers for the year 1937 were elected, and their names will be found on the inside cover.

The following changes were made in the membership dues:

1. Students under 18 may join for 50¢ per year
2. Group membership, at $1 per year, will be available to Boy Scout troops
3. A free membership will be presented to any Boy Scout troop that secures five new members.

The adoption of a seal for the Society was discussed, two of the members having brought in sketches. A committee was appointed to design a seal, and to report at the annual spring meeting on May 1.

A good part of the afternoon was devoted to a discussion of the problem of mapping and preserving Missouri antiquities A number of the members had been active along this line during the year, and they reported upon their activities. Mr. Elliff proposed that the Society establish contacts with the new commission in charge of state parks, as soon as the legislature established such a commission, and that our conservation program be presented and pressed.

TRIBUTE TO SEQUOYA, ORIGINATOR OF THE CHEROKEE ALPHABET

Henry W. Hamilton

Around a little log cabin in the hills 12 miles northeast of Sallisaw, Oklahoma, Thousands of Oklahomans and visitors from other states assembled on June 12, 1936 to pay tribute to one of the most remarkable Indians known to history -- Sequoya, inventor of the Cherokee alphabet. It was the writer's good fortune to attend part of the celebration.

The day's program was the consummation of plans promoted by the Oklahoma Historical Society permanently to preserve the home of this celebrated Indian. Indians contributed money for the purchase of 10 acres of land surrounding the site; $10,000 was appropriated for the building, to be constructed by W.P.A.; and an additional $15,000 was set aside for the purpose of building a road which ultimately will be extended 13 miles east to intercept U. S. Highway 71.

The log cabin in which the Indian lived for many years, the last house he occupied, has been made a national shrine. A handsome stone building, 42 by 48 feet, was being erected around and over the little cabin to protect Sequoya's humble home and preserve it for posterity. The cornerstone of the building was of black marble quarried in Oklahoma and was laid under Masonic auspices. At the time of the celebration, only a part of the walls of the protecting building had been put in place.

The little log cabin 15 feet square was open for the inspection of the public. It had been built on a foundation of stone pillars and was much the same type as the log cabins which were formerly rather plentiful in the state of Missouri. The roof was covered with clapboard shingles, most of the red clay chinking had fallen away from between the logs and the rough floor of the little home contained no household equipment. A fireplace had evidently furnished the means of both obtaining heat and cooking food. It was planned to renew the clapboard shingles and other parts of the structure when the larger protective stone building was completed and to leave the log cabin in its original form.

At noon, a barbecue dinner was served on a hillside east of the cabin to the crowd which was estimated at 10,000 persons. Five steers and several head of sheep were contributed for the barbecue by local communities. Hundreds of hill people who had walked miles to attend the event were fed. The program included addresses by both prominent whites and Indians, including the superintendent of the Five Civilized Tribes Indian Agency. Part of the ceremony was conducted in the Cherokee tongue.

"We are here to honor Sequoya, the greatest Indian," said Federal Judge Robert L. Williams of Muskogee, former

Oklahoma governor and first principal speaker at the ceremony. "No white man in this country ever invented an alphabet for the guidance of his people. He deserves more praise than we can give. All the other tribes of Indians use the alphabet of the white man. Not so the Cherokee. They strove to progress."

At the close of the dedication ceremony, Judge Williams requested white people to "take a timid Indian by the arm and go eat with him."

"I have been to Indian celebrations and I have seen the whites jump in and eat while the backward red man stayed in the background and was left hungry", the judge said, and the crowd cheered.

Interpreters as well as the speakers used a public address system, and the Indians were able to understand proceedings of the ceremony. Tribesmen, many of whom carried bows and arrows, stood in the crowd while the program was given. Corn stalk shooting and Indian ball games, in which only the Indians participated, were features of the afternoon program.

George Gist, or Guess, more widely known by his Indian name, Sequoya, was born about 1760 in the Cherokee village of Taskigi, west of the Chilhowee mountains and on the Tennessee river. The site is now in the state of Tennessee. His mother was a Cherokee woman, daughter of a chief in Echota. His father is generally believed to have been a German trader. However, Sequoya grew up in the tribe and was entirely unacquainted with English or any civilized arts. He was a cripple. About 1809, he discovered the purpose and usefulness of the white man's written word which he called the "Talking Leaf", and set to work to invent one for his own language. By 1821, in spite of the discouragement and ridicule of his fellows, he had perfected a syllabary of 86 characters, based upon letters in an old English and Greek primer to which he had access and submitted this to the chief men of the nation. Upon their approval, the Cherokee of all ages set about to learn it with enthusiasm. The alphabet was so simple that it could be mastered within a few days and after a few months hundreds were able to read and write their language. In 1828, the Cherokee Phoenix was published at New Echota, Georgia. This was the first newspaper published in any Indian language. Sequoya's gift of the written word to his people is credited with having lifted them from ignorance and obscurity to a leading place among the civilized tribes.

Sequoya came west in the Indian removal about 1839, and lived in what was then Arkansas. Later he settled at the site which has now been made a shrine to his memory. This was near a salt spring, donated to him by the government in recognition of his achievement. In this little cabin he lived until 1842, when he set out for northern Mexico to take his written word to a lost band of Cherokee that according to tradition had crossed the Mississippi before the revolution and wandered to some mountains in the west. He died on that journey, and the place of his burial is unknown.

STUDY OF MISSOURI'S PREHISTORY IN THE PUBLIC SCHOOLS

Bane L. Ross

It seems that the study of the American Indian in the schools has been confined largely to stories, legends and traditions. Little effort has been made to study the historical Indian; to gather original information through the schools for record and study; nor to develop a proper appreciation of that period which can hardly be called historic or prehistoric and which is the opening door to the unlighted past which challenges the most learned men and women. A proper appreciation of the contribution of the Indian to modern life has not been sufficiently developed.

It is not the purpose of this paper to offer a solution of the problem, to point out just how the schools may contribute information for scientific study, just what shall be taught and how it shall be taught. It is rather the purpose to attempt an intelligent approach to the problem. The attempt is largely based on a project in the schools of Morgan County.

While the effort to gather information and attempt a sort of study was carried together in this project and might be used generally for a time, this can hardly be permanent. Even if results were satisfactory the public would tire of giving the information. A survey made by children can be only of a preliminary nature, and the making of a survey and the teaching of the Indian must be considered Separately except in a preliminary way.

Since the Morgan County survey has not yet been summarized, it is not possible to draw definite and detailed conclusions as to methods and results. However, a few observations can be made.

The success of a survey is largely dependent upon the attitude of the teacher. It should not be attempted on a county-wide basis until it has been presented to the teachers and they have approved it. It will be necessary for each teacher to use her judgment in each school. In rural sections a house to house canvas in some form seems to be practical and workable. In towns some other form of survey seems to be necessary. Effort will be made to make more definite statements in the summary of the project.

Since the work done by the children can be only preliminary it is necessary for someone who knows something of the Indian to be in the county to push things at all times. He should be a member of the Society, arrange for the matter to be presented to the teachers in meeting, keep in constant touch with them until it is concluded, and consult the County Superintendent at all points. He should follow up the leads supplied by the children by investigations in connection with the Society and assist it in reaching conclusions sufficiently to prepare subject matter for teaching the subject intelligently in the schools.

This leads to the problem of subject matter which must be prepared by those who are specializing in the study of prehistory, who can in a measure draw conclusions from their study. It seems that it should be an intelligent presentation along proper educational lines of that period which is definitely history, that which has some basis in fact, and that which seems to be reasonable theory. As I understand it, it will be necessary for this to be changed from time to time as new and more evidence is considered and new conclusions reached.

To the summary of the county project it is intended to attach an attempt at a brief study of the Missouri Indian. It is not in any sense intended to be exhaustive or conclusive but rather it is hoped that it will be a starting point from which those who are more able and much better informed might develop a worthwhile study.

This study and summary is intended primarily for distribution in the county in which the project is conducted. However, the State Department of Public Schools has indicated that it might be possible to make a wider distribution.

In that case it is entirely agreeable to use subject matter prepared in part or entirely by the Society officially. In that way a better study of the Missouri Indian can be obtained. It is, therefore, suggested that, with the exception of a brief summary of the county project, the Society take active control of the study. It might also help in making a summary of the county project.

While the study is in the preliminary stage it should probably be confined to a sort of pamphlet. While this is not the most effective way it is a starting point from which a more permanent study can be developed as experience and conditions indicate. It would also help prepare the public mind to appreciate the study more fully, check the destruction of remains and obtain cooperation in the preparation of a more conclusive subject matter.

When the Society has surveyed the state sufficiently to consider that conclusions can be intelligently made and reasonable theory set up where conclusions end, it is suggested that the subject matter be added to Missouri History text books for study in the schools of the state. It seems reasonable that arrangements could be made with authors and publishers of texts to include one or more chapters. In that way a permanent study could be set up in the logical place for it.

Thus, with a practical manner of study provided, the State Department of Public Schools could be expected to include it in its Courses of Study. New Courses of Study are at present in the stage of preparation. The Department seems to be willing to give any reasonable cooperation in the matter of Indian study and the responsibility seems to rest with those who appreciate Missouri's prehistory and are engaged in a systematic and organized study of it.

To the delightful and motivating Indian stories, legends and traditions there should be added historical facts, an intelligent conception of Missouri's unlighted past and a greater appreciation of the Indian's contribution to modern life. The Society and the public schools should work together to untangle the prehistoric threads. Let not the old camp sites and trails be erased by the passing centuries nor the soft footsteps on the hunting grounds be forever stilled by the din and clamor of life. But let Missourians envision the invisible "curling smoke of wigwams" and the Indian who labored, fought, hunted, grieved, wooed and loved before the sun settled in the western sky.

NOTES

The State Fair. Under the direction of Mr. J.B.L. Davis, of Marshall, the Society conducted its second exhibit at the State Fair. Mr. Davis has purchased several good show cases in which the relics are kept safe and can be effectively displayed. The Fair Association has come to appreciate the importance of the archaeological collection, and is giving excellent cooperation. For 1937 it has promised the sum of $50.00 to be awarded in prizes.

The prizes awarded at the 1936 Fair were as follows:

First prize: Dr. Robert Nuckles, Slater,
Second prize: Mr. J. M. Shippee, No. Kansas City,
Third prize: Mr. H. E. Shroeder, Gerald.

The Spring Meeting. Plans are now being made to hold the annual spring meeting in Arrow Rock, Mo., on Saturday, May 1. There will be papers and talks on archaeology and related subjects. Members are urged to bring along parts of their collections for comparison and display. Anyone who would like to appear on the program is invited to submit the subject of his talk or paper to the secretary of the Society. Arrow Rock is a place of considerable historic importance, and this meeting provides an excuse for visiting the place for those who are not already acquainted with it. In the past these annual spring meetings have been extremely pleasant and profitable, and we are safe in guaranteeing those who attend a most enjoyable experience.

The next issue of The Archaeologist will carry the roster of members of the Society.

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Notched Chipped Implements Classified

by

J. Allen Eichenberger

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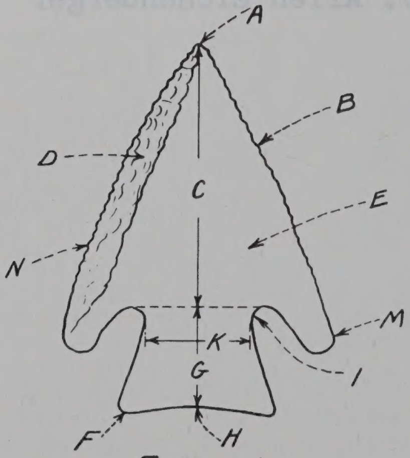


FIGURE 1

A, POINT; B, EDGE; C, FACE; D, BEVEL; E, BLADE; F, TANG; G, STEM; H, BASE; I, NOTCH; K, NECK; M, BARB OR SHOULDER; N, SERRATION.

NOTCHED CHIPPED IMPLEMENTS CLASSIFIED

by
J. Allen Eichenberger

Whenever a find is made the archaeologist is called upon to answer a multitude of questions concerning the relics unearthed. Among the first to be asked are:

1. Who made them? 2. How old are they?

Since the aborigines left no written record, the first question is difficult to answer. The archaeologist can only study the cultural traits as manifested by the implements and utensils and content himself with assigning names to these cultural groupings. In such a study attention will be given to the form or pattern and the technique of fashioning.

How old are they? If the artifacts are stratified geologically, if tree ring chronology can be established, or if the bones of a subsequently extinct animal are found in association with them the answer is simplified. However such conditions are infrequent and the age estimate which the archaeologist places will often be the result of his matching the artifacts found with others of a similar cultural pattern previously dated. Here again he will consider the pattern and technique of fashioning.

In both cases, pattern and technique have been the determining factors. For this reason it would seem that these two bases would offer the most important criteria for the classification of chipped implements.

The Writer's efforts, in this paper, have been confined to the classification as to pattern of the notched, chipped implements. It is his belief that a descriptive classification such as this should be worked out for all of the more common forms together with another concerning the technique of fashioning. If then, from these two classificatory systems, a series of types related to the various cultural groups should be set up, it would seem that greater progress could be made in deciphering America's prehistory.

While the writer has endeavored to study patterns from the entire United States, he realizes that the majority which have come under his observation are from the states of Missouri and Illinois. It is quite possible that important type variations have been omitted. For this reason criticism is invited. Only through such may be developed a chart which will include all of the more important patterns.

The popular idea that no two arrowheads are alike is probably true if the exact size, pattern, and the placing of flakes is to be considered. However, in looking over a large collection, numerous flints are always to be found which resemble each other so closely that one feels almost convinced they were made by the same Indians. Because of the fact that this resemblance carries through in points of varying

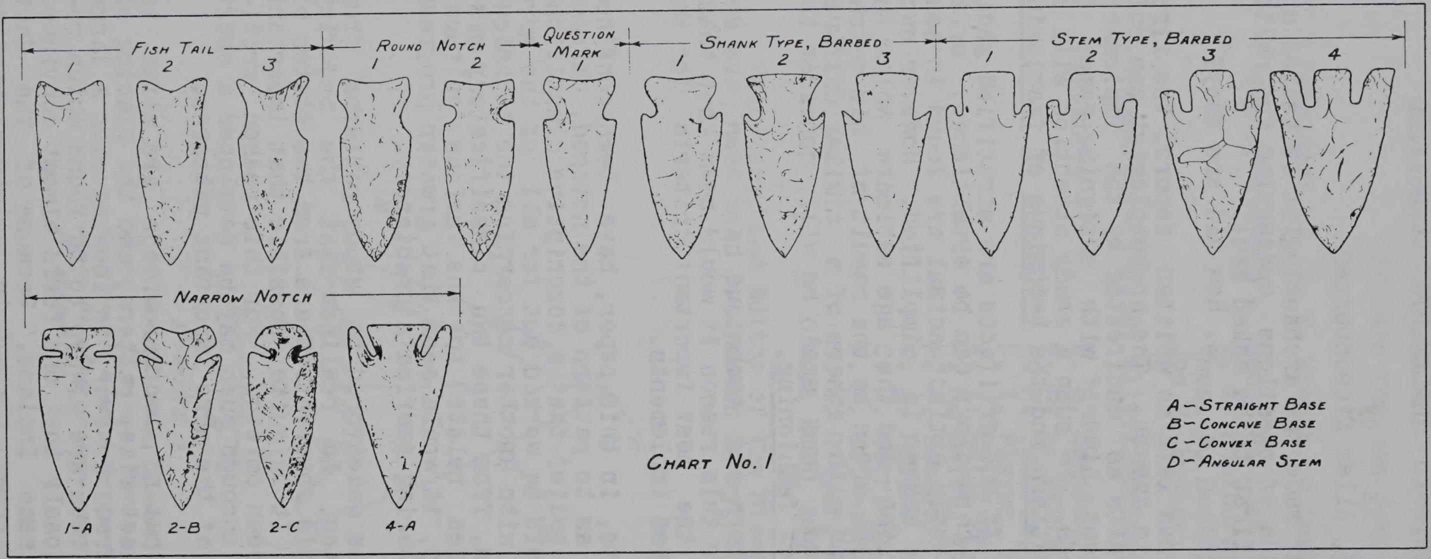

Fish Tail
1
2
3
Round Notch
1
2
Question Mark
1
Shank Type, Barbed
1
2
3
Stem Type, Barbed
1
2
3
4
Narrow Notch
1-A
2-B
2-C
4-A
A – Straight Base
B – Concave Base
C – Convex Base
D – Angular Stem

Chart No. 1

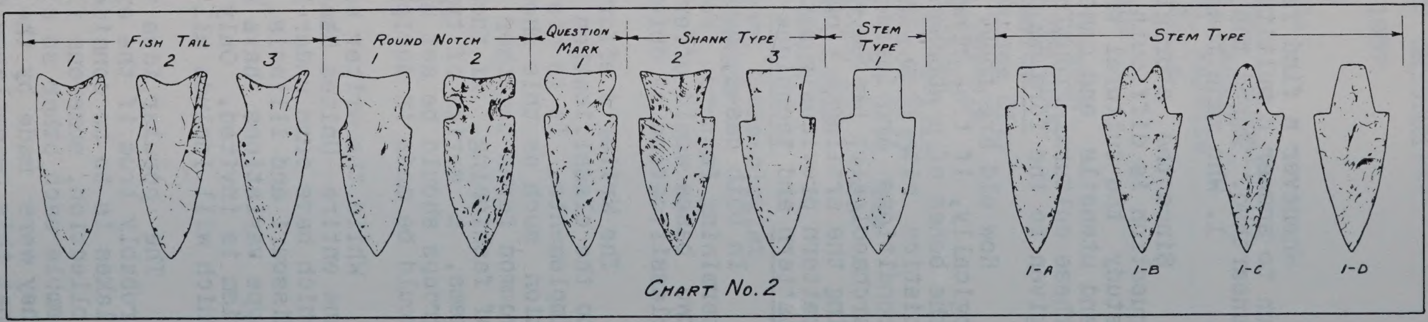

Fish Tail
1
2
3
Round Notch
1
2
Question Mark
1
Shank Type
2
3
Stem Type
1
Stem Type
1-A
1-B
1-C
1-D

Chart No. 2

length and width, it would seem that the most important basis for classification as to pattern is the notch, or provision for hafting.

Considering this difference alone, it is possible to incluse practically every point in one of the eight type groupings as shown in Charts 1 and 2. In collections from Missouri and Illinois studied by the writer, over 98% of the points were found to fit into one of these type groupings. It will be noted that the types in Chart 1 are arranged in a series in such a manner as to show a gradual evolution from the notchless, but polished edged Fishtail Type, No.1, to the heavily barbed pattern, Stem Type, Barbed, No. 4. In Chart 2 the evolution follows this same series to and including the Question Mark Type. From this point it continues with the same types as developed in Chart 1 except for the barbs, ending with the Stem Type.

This evolutionary arrangement is for convenience of handling alone and should not be interpreted as representing an evolutionary development of the patterns. Nevertheless it is interesting to note that the first type, Fishtail, includes the famous Folsom form, F.T. No. 12, (see Chart 3) considered to represent the oldest form yet found on this continent. The Narrow Notch type as shown in Chart 1 is not directly connected with this series but can be very nicely developed through Shank Type, Barbed, No. 1 (see Chart 5).

Certainly there are many variations of these eight types and the charts which follow were prepared with a view to illustrating the most important of these variations. Unless a point matches very closely a true type or illustrated variation, it should either be recorded only as belonging in that certain type grouping and the specific number omitted, or as belonging to the variation to which it most closely resembles and a written description of the difference included. For instance we might have a point which matches Shank Type, Barbed, No. 35 (see Chart 5) except that the barbs are decidedly rounded. It should be recorded as such, with that notation. In collections recorded by the writer, about 92% of the points were found to fit closely into this classification. For the remaining 8% a further written description was necessary. It should be remembered, in matching a point with the illustrations, that the length and width are, for the most part, inconsequential in determining the specific variation.

The terms applying to the parts of the chipped implement which are used in the following descriptions are as suggested by the late Gerard Fowke in his booklet "Prehistoric Objects Classified and Described" (see Fig.1) The term "barb" will be used to indicate that portion of the shoulder which projects backward.

FISH TAIL TYPE (Chart No. 3)

This type is easily distinguished because of its fishlike appearance. It is divided into three primary forms which vary only as to the deepness of the indentation. In practically all of the variations the sharp cutting edge has

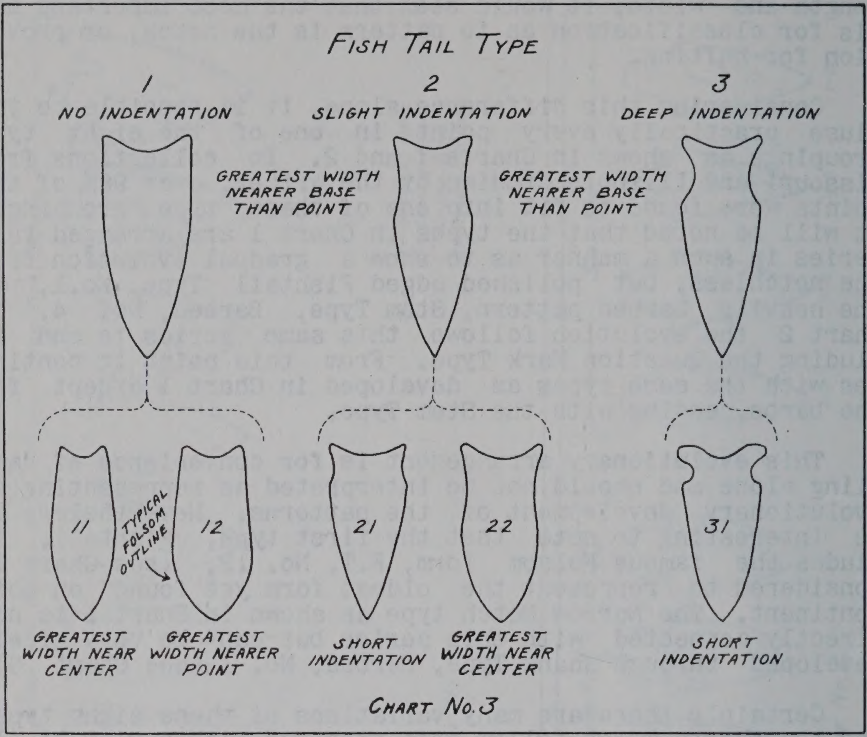

FISH TAIL TYPE
1
NO INDENTATION
2
SLIGHT INDENTATION
3
DEEP INDENTATION
GREATEST WIDTH NEARER BASE THAN POINT
GREATEST WIDTH NEARER BASE THAN POINT
11
TYPICAL FOLSOM OUTLINE
12
21
22
31
GREATEST WIDTH NEAR CENTER
GREATEST WIDTH NEARER POINT
SHORT INDENTATION
GREATEST WIDTH NEAR CENTER
SHORT INDENTATION

CHART No. 3

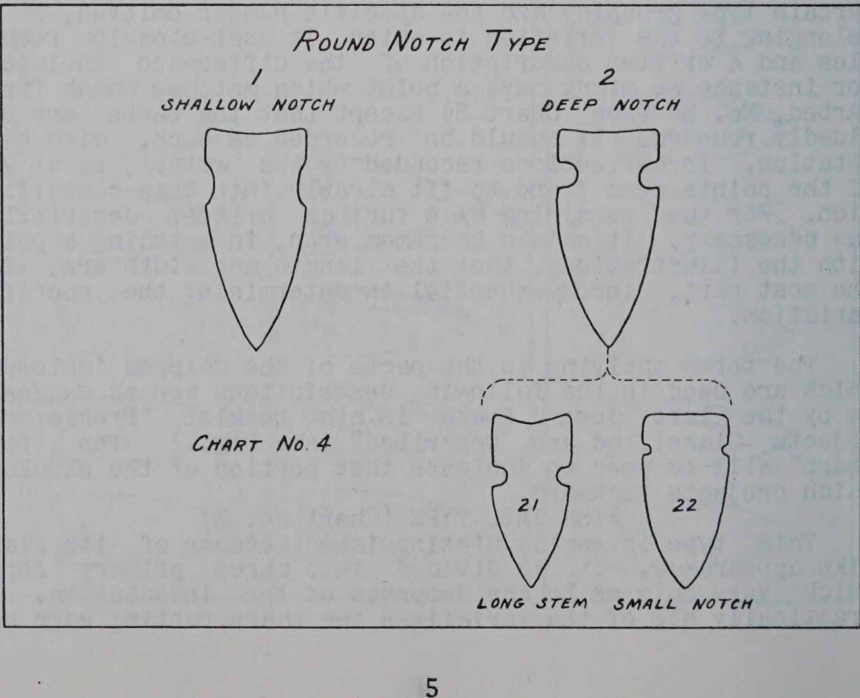

ROUND NOTCH TYPE
1
SHALLOW NOTCH
2
DEEP NOTCH
21
22
LONG STEM
SMALL NOTCH

CHART No. 4

been smoothed along the indentation and around the, almost invariably, concave base. No. 1 of this type, which has no indentation, similarly carries such edge smoothing around the same area. Many of the variations developed from No. 1 are fluted from the base, that is, a long flake was struck off each side, leaving the implement very thin at the center, a specialized feature in common with the true Folsom points. Another interesting feature of the Fish Tail group is that in many of the beveled forms the beveling is to the right instead of the left.

ROUND NOTCH TYPE (Chart No. 4)

Possibly the simplest provision for hafting is that of the Round Notch type. While some of these points are very nicely made, the majority are of medium or poor quality, generally being devoid of specialized features. Occasionally points are found with notches quite deep and round, having concave bases and edge smoothing. These two last mentioned features would, in the writer's opinion, place them in the Fish Tail category (see F.T.No.31: Chart No.3). The Round Notches seem closely akin to the Question Mark group, for not infrequently are specimens found having one side a Round Notch and the other a Question Mark.

QUESTION MARK TYPE

The name Question Mark has been assigned to this particular pattern because of the resemblance of its notch to the question sign. Only barbless forms are included, those having barbs being classified as Shank Type, Barbed, No. 1. These two types evidence kinship in that both are often represented in the same implement. Few if any of the Question Marks are beveled, fluted, or evidence edge smoothing.

SHANK TYPE, BARBED (Chart No. 5)

Having many variations, the Shank Type, Barbed group is divided into three primary forms (see insert in the right hand corner of Chart 5). Many of these forms together with their variations are finely made and are often highly specialized. This is particularly true of No. 3 and its variants. Fine workmanship, edge smoothing around the entire shank, and bevel appear in many of these forms. It will be noted that a few variations have been included in which the only difference is in their width, as in variations 33, 34 and 35. This seems justified in view of the fact that it illustrates the gradual development of a variation which alone might seem unrelated to the form from which it was drawn.

STEM TYPE, BARBED (Chart No. 6)

A barbed point ceases to be classified as Shank Type, Barbed and becomes Stem Type, Barbed when the width of the stem is in no place greater than that at the neck. The difference in the four forms illustrated is only in the size of the barbs. Generally speaking, all of these forms are devoid of specialized features. Forms 3 and 4 are often roughly though effectively made.

NARROW NOTCH TYPE (Chart No. 8)

Points of this type are distinguished by their narrow, slanting notch. Because of their symmetrical pattern and fine workmanship these forms are highly prized by collectors; especially is this true of the "Dovetails", base variation C. Edge smoothing is almost invariably apparent along the base

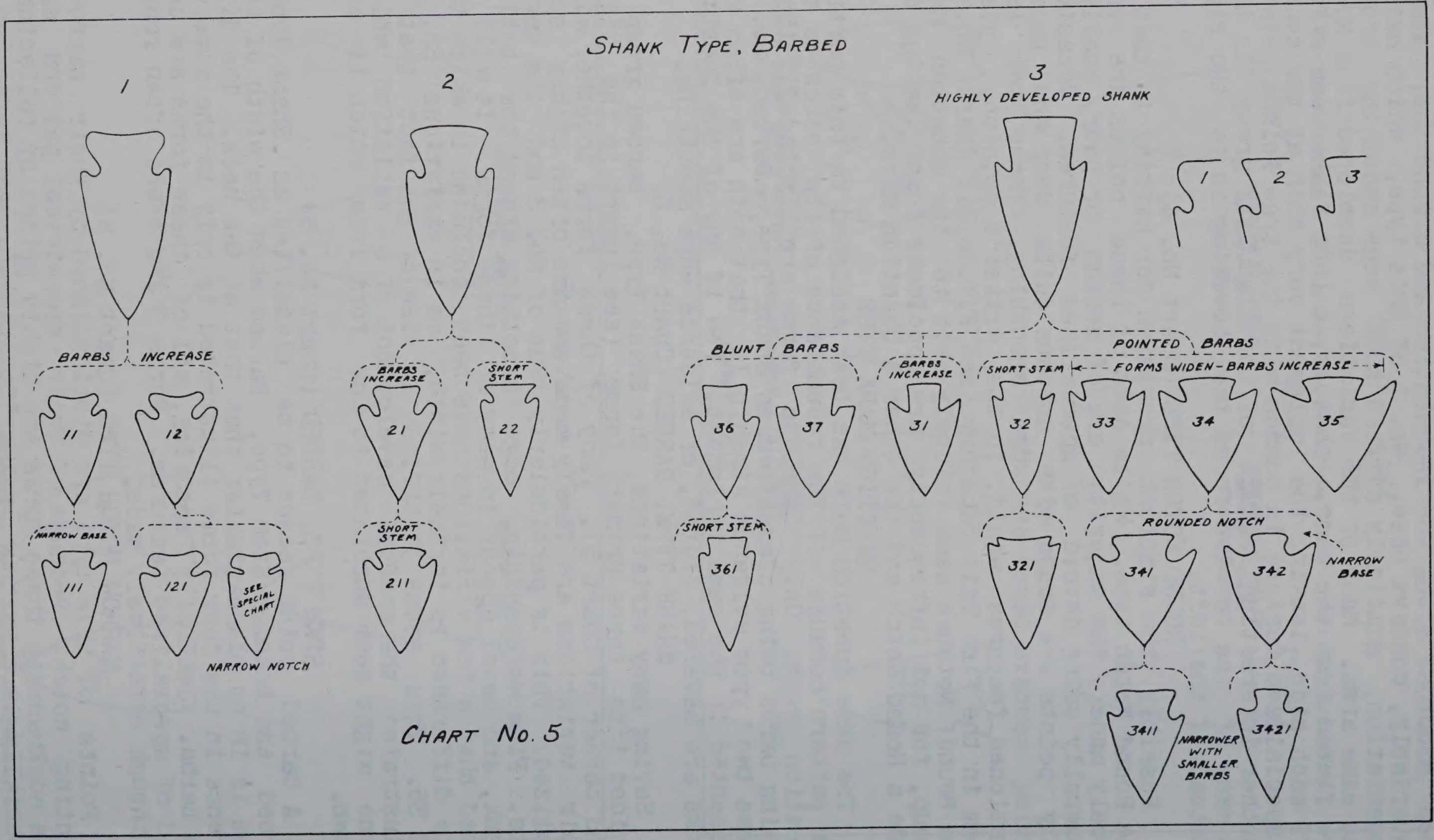

SHANK TYPE, BARBED

CHART No. 5

1
2
3
HIGHLY DEVELOPED SHANK
BARBS
INCREASE
11
12
NARROW BASE
111
121
SEE SPECIAL CHART
NARROW NOTCH
BARBS INCREASE
SHORT STEM
21
22
SHORT STEM
211
BLUNT
BARBS
36
37
SHORT STEM
361
BARBS INCREASE
31
POINTED
BARBS
SHORT STEM
FORMS WIDEN - BARBS INCREASE
32
33
34
35
321
ROUNDED NOTCH
341
342
NARROW BASE
3411
3421
NARROWER WITH SMALLER BARBS
1
2
3

edge of all of these forms. Many are beveled, possibly a higher percentage than in any of the other types. It will be quickly observed in referring to the chart that the difference in the five forms of this type is in the angle of the notch. In Form 1 the notch is horizontal from which it angles to a vertical position in No. 5. An additional base variation, "CB", is given, as such is frequently represented.

SHANK TYPE

No special chart is included for the Shank Type as their patterns match very closely, with the exception of the barbs, the Shank Type, Barbed. In classifying the Shank Types many of these patterns are useless as they differ only in the size and shape of the barb; however there are enough variations which concern the shank alone to include practically all of the Shank Type patterns. Form 1 and its variants should not be considered in matching the barbless patterns with the chart, as the absence of barbs in such forms would place them in the Question Mark category. The majority of the Shank Type points catalogued by the writer were found to match with numbers 2, 22, 3, 32, 33, 3411 and 3421.

STEM TYPE (Chart No. 7)

Possibly the most easily classified of all the groups is the Stem Type. Points belonging in this division are as a rule either of Form 1, with square shoulders, or of Form 2 and 3 with shoulders that droop. An additional base variation, "AC", is illustrated, as such varieties are not uncommon. Points of the Stem Type are found over a wide area. Their workmanship varies from bulky, roughly made implements to those showing a high degree of skill. Edge smoothing and other specialized features are generally lacking; however, a small percentage of them are beveled.

RECORDING A COLLECTION

Many fine collections of Indian relics are practically valueless from a scientific standpoint because of the fact that no record has been kept of the place or conditions of their finding. First of all, each piece should be numbered with waterproof ink, either directly on the artifact or upon a square of white adhesive tape attached thereto. These numbers should then be catalogued in a notebook in which all available information should be recorded. A suggested record sheet is illustrated in Fig. 2. The points recorded in this figure are those shown in Plate I. For convenience in recording, a list of abbreviations relative to the foregoing classificatory system follows:

Type Abbreviations	
Fish Tail	F.T.
Round Notch	R.N.
Question Mark	Q.M.
Shank Type, Barbed	Sk.B.
Stem Type, Barbed	Sm.B.
Shank Type	Sk.
Stem Type	Sm.
Narrow Notch	N.N.

Miscellaneous	
Notched Scraper	Ns
Notched Scraper with beveled edge	Nsb
Blunt	Bt
Drill-like	Dl

Specialized Features	
Beveled to left	Bl
Beveled to right	Br
Serration	S
Edge Smoothing	Es
Fluted, one surface	F1
Fluted, both surfaces	F2

Contour of Base	
Straight	A
Concave	B
Convex	C
Angular (for Stem types)	D

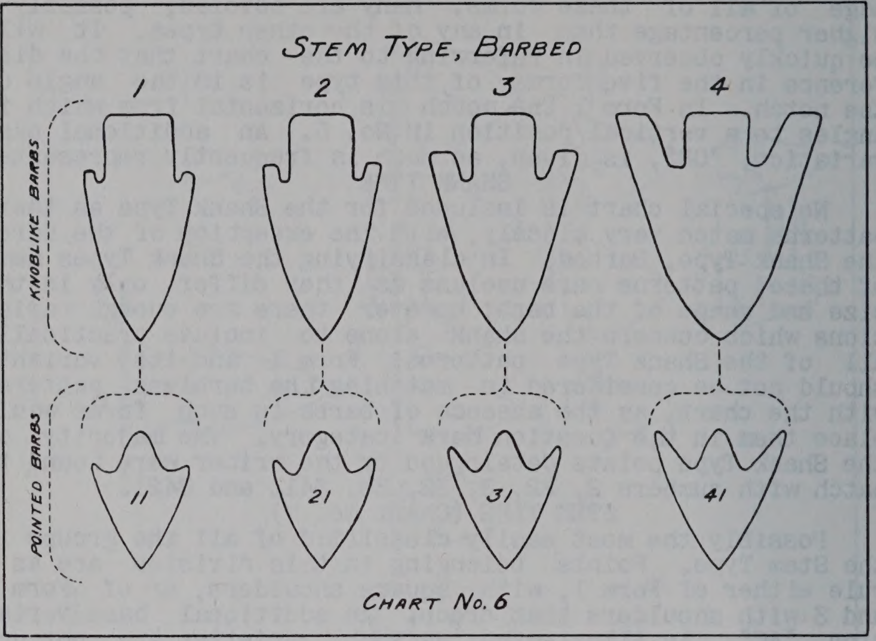

STEM TYPE, BARBED
1
2
3
4
KNOBLIKE BARBS
POINTED BARBS
11
21
31
41

CHART No. 6

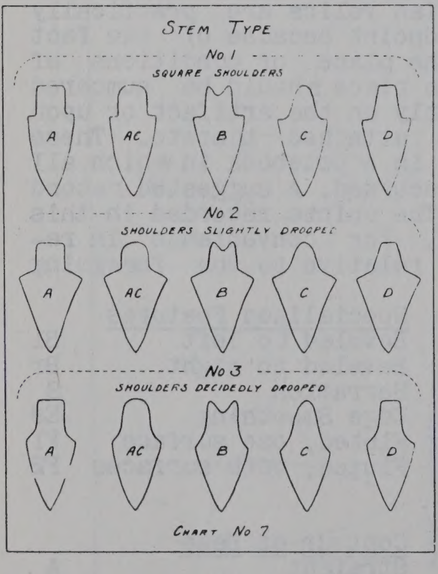

STEM TYPE
No 1
SQUARE SHOULDERS
A
AC
B
C
D
No 2
SHOULDERS SLIGHTLY DROOPED
A
AC
B
C
D
No 3
SHOULDERS DECIDEDLY DROOPED
A
AC
B
C
D

CHART No 7

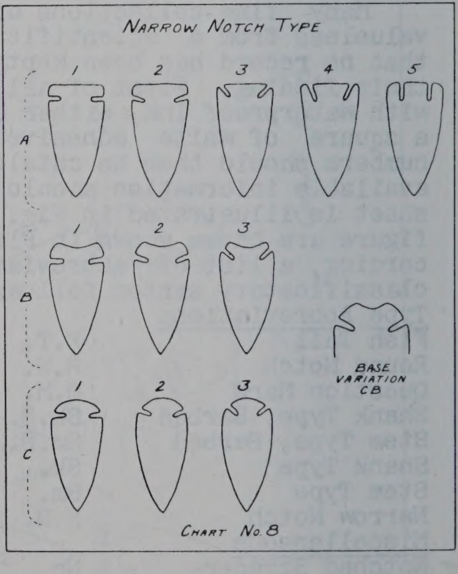

NARROW NOTCH TYPE
1
2
3
4
5
A
1
2
3
B
1
2
3
C
BASE VARIATION CB

CHART No. 8

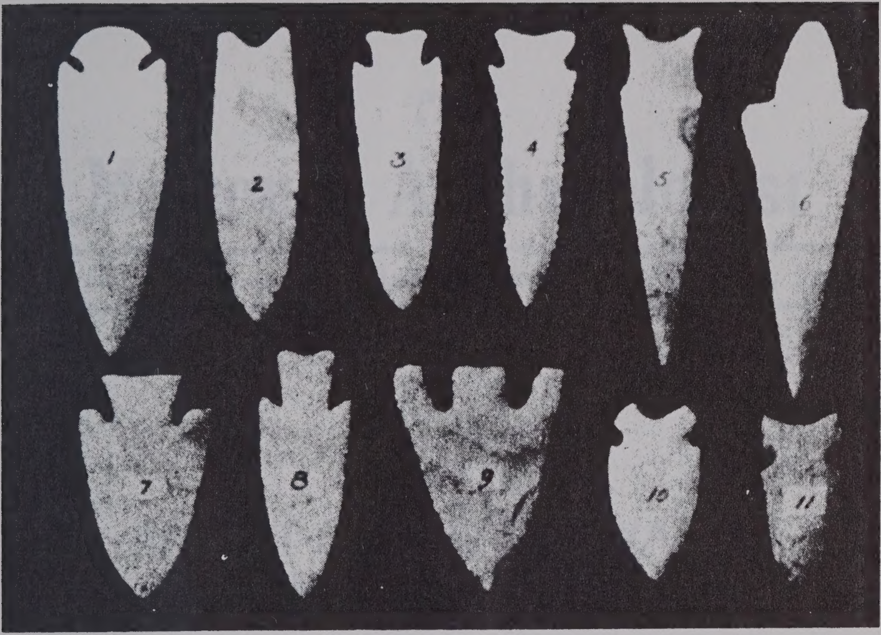


PLATE I

Record Sheet

Catalogue Number	Type	Variation	Base	Specialized Features	Length	Width	Where Found	Remarks
1	N.N.	3	C	Es	4½	1½	Lincoln Co, Mo.	
2	F.T.	11	B	Es, Fz	4	1 3/16	Lincoln Co. Mo.	Length of Fluting - 1½"
3	Sk.B.	32	B	Es, Bl	3⅞	1¼	Missouri	
4	Sk.B	1&32	B	S	3¾	1 3/16	Pike Co, Ill.	One notch appears to be Q.M. as tip of barb is broken.
5	F.T.	3	B	Es, Bl	4¾	1⅛	Ralls Co. Mo.	
6	Sm.	1	C	Bl	5¼	1¾	Missouri	
7	Sk.B	37	A	Es	3¼	1⅞	Pike Co, Ill.	
8	Sk.B	3	B		3½	1 5/16	Perry Co, Mo.	
9	Sm.B	4	A		3¼	2 3/8	Reynolds Co. Mo.	
10	QM	1	B		2½	1 5/16	Ralls Co. Mo.	
11	R.N.	2	B		2½	1⅛	Ralls Co, Mo.	

Figure 2

THE
Missouri Archaeologist

Vol. 4 No. 1 Columbia, Mo. February, 1938

REPORT ON THE EXCAVATION OF MOUND BOI-1

By

J. C. Harrington

REPORT ON THE EXCAVATION OF MOUND Bo1:1[1]

J. C. Harrington

Attention was called to Missouri's wealth of prehistoric remains, probably for the first time, by Squier and Davis in 1847.[2] Since their time various workers have made cursory surveys of archaeological sites in different parts of the state, but the nature and multiplicity of problems were often obscured by the particular interests in American prehistory in vogue during this early developmental period of archaeology. Bushnell[3], in 1904, briefly described the types of sites common throughout the Ozark region, while Fowke has furnished us general descriptions of the numerous stone-vault mounds found along the Missouri River.[4]

Fowke recognized typological differences in the pottery from certain of these mounds, but he reports no stratigraphy of the two distinct pottery wares described. No one has ever followed out this clue, although our present knowledge of prehistoric cultures of surrounding regions confirms Fowke's suggestion that two cultures, separated in time, were represented here. Later workers have directed their attention either to the spectacular remains of southeastern Missouri or to the caves of the Ozark region in the south and west. No comprehensive discussion of the archaeological problems of the entire state and their relationship to the recent developments in adjacent areas has thus far been attempted.

Realization of the need for scientific research and coordinated effort over the entire state led to the organization of the State Archaeological Society a year ago, primarily through the efforts of Professors Jesse Wrench and J. Brewton Berry of the University of Missouri. It was through their suggestion that the University added a class in archaeological methods to its summer school schedule for 1935 resulting in the writer's going to Missouri in the capacity of instructor. As part of the work of this course a small mound near Columbia was excavated by Professors Wrench and

---

[1] Sites are numbered as to county, each county in the state having a two-letter symbol (Bo for Boone, etc.). Numbers are assigned to sites when they are definitely located and recorded in the Survey records. The first number in the designation following the county symbol is the site number, the second figure refers to the feature within the sites, e.g., mound, cemetery, dump-heap, house-pit, etc.

[2] Squier, E. G., and Davis, E. H., Ancient Monuments of the Mississippi Valley, Smithsonian Contributions to Knowledge, No. 1, 1847.

[3] Bushnell, D. I., Archaeology of the Ozark Region of Missouri, American Anthropologist, N. S., VI, 1904.

[4] Fowke, Gerard, Antiquities of Central and Eastern Missouri, Bulletin 37, Bureau of American Ethnology, 1910.

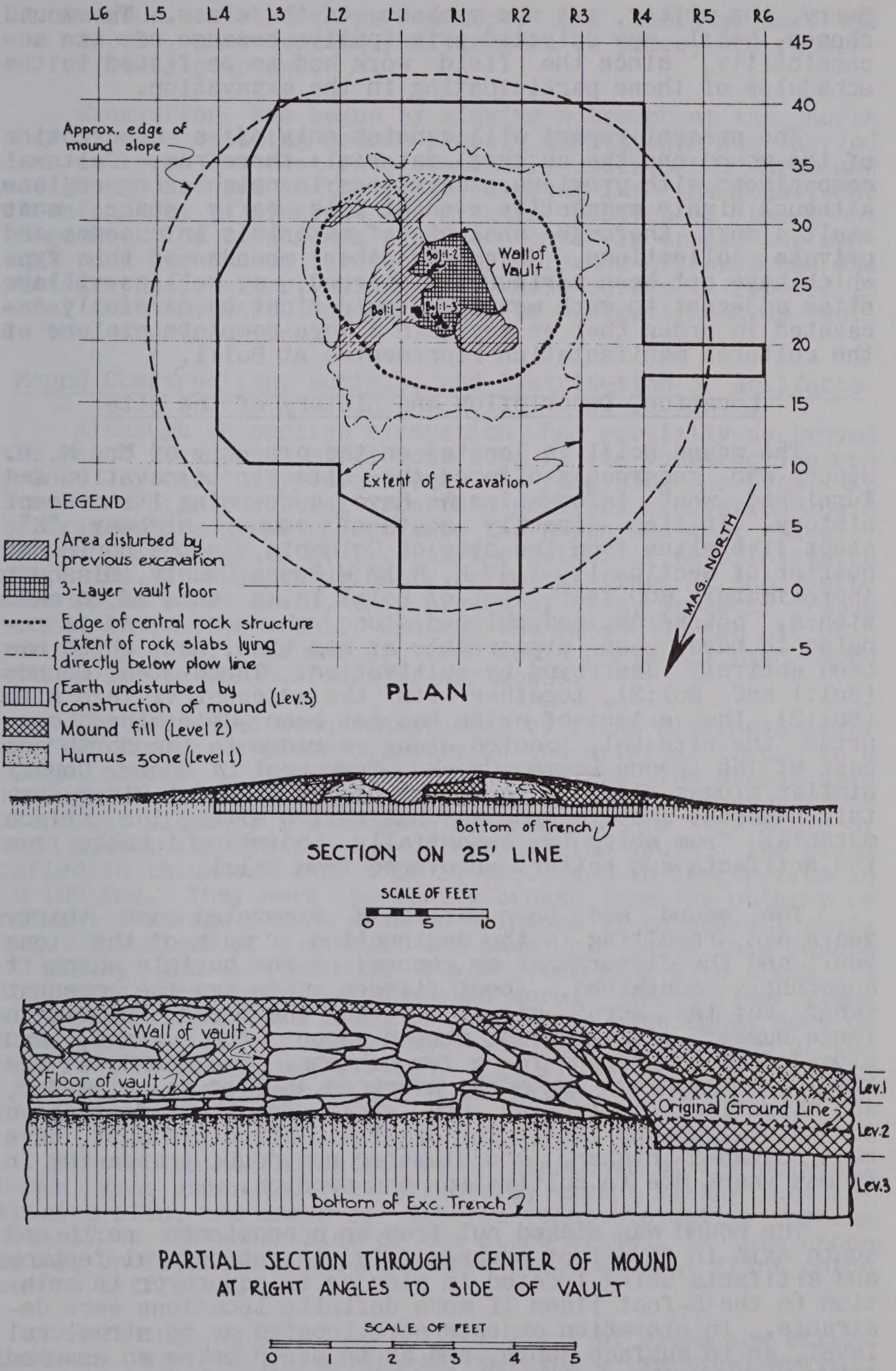

L6
L5
L4
L3
L2
L1
R1
R2
R3
R4
R5
R6
45
40
35
30
25
20
15
10
5
0
-5
Approx. edge of mound slope
Wall of Vault
Bol:1-2
Bol:1-1
Bol:1-3
Extent of Excavation
MAG. NORTH
LEGEND
▨ Area disturbed by previous excavation
▦ 3-Layer vault floor
Edge of central rock structure
Extent of rock slabs lying directly below plow line
Earth undisturbed by construction of mound (Lev.3)
Mound fill (Level 2)
Humus zone (Level 1)
PLAN
Bottom of Trench
SECTION ON 25' LINE
SCALE OF FEET
0
5
10
Wall of vault
Floor of vault
Original Ground Line
Lev.1
Lev.2
Lev.3
Bottom of Exc. Trench
PARTIAL SECTION THROUGH CENTER OF MOUND
AT RIGHT ANGLES TO SIDE OF VAULT
SCALE OF FEET
0
1
2
3
4
5

FIG. 1

Berry, the writer, and the members of the class. The mound chosen, Bol:1, was selected principally because of its accessibility, since the field work had to be fitted to the schedules of those participating in the excavation.

The present report will consist only of a description of the mound and the cultural material therefrom. Cultural comparisons with previous excavations in neighboring regions, although highly suggestive even at this early stage, must await a more thorough analysis of materials in museums and private collections. Moreover, other mounds of this type which have not been seriously disturbed, as well as village sites adjacent to such mounds, should first be carefully excavated in order that we may gain a more complete picture of the cultural manifestation represented at Bol:1.

Location, Description and History of the Site

The mound Bol:1 is located on the property of Mr. M. B. Hopper who generously offered the site for excavation and furnished what information we have concerning its recent history. It lies directly south of county highway "K", about five miles from the city of Columbia, in the northeast quarter of Section 11, T 47 N, R 13 W,Boone County, Missouri. Approximately 800 feet west of Bol:1 is an area of broken stones, potsherds, and chipped stone where a mound is reputed to have been discernible at one time, but which has been entirely destroyed by cultivation. These two mounds (Bol:1 and Bol:2), together with the adjacent village site (Bol:3), the extent of which has not been determined, comprise the site Bol, located along a ridge to the north and east of the Bonne Femme Creek. Over most of Boone County similar ridges along tributaries of the Missouri River contain numerous small mounds and habitation sites, the surface material from which is essentially indistinguishable from the artifacts and pottery recovered from Bol:1.

The mound had been partially excavated some thirty years ago, resulting in the destruction of much of the stone vault and the disturbance or removal of the burials which it apparently contained. About fifteen years ago the present owner cut the scrub growth covering the mound, removed a large number of rock slabs strewn about the surface, and plowed over the ground for a few seasons. The mound, at the time of beginning our work, averaged 45 feet in diameter, was approximately circular, and stood roughly 2 feet above the natural ground line. The original structure must have been somewhat higher, the diameter no doubt increasing in recent years due to cultivation and erosion.

The mound was staked out from an approximate north and south axis in five-foot squares (Fig. 1), structural features and artifacts being located in plan as to square or in relation to the 5-foot lines if more definite locations were desirable. In elevation objects were located as to structural level, as to surface depth, and as to depth below an assumed datum plane. All potsherds and pieces of worked stone, no matter how fragmentary, were retained, though only a sampling of numerous unworked chips was kept. All skeletal material was exposed, sketched and photographed in place, and retained for study purposes.

Excavation was begun by sinking a trench at the north edge of the existing mound slope. This trench was carried down at least one foot into distinctly undisturbed earth and was then continued to the south, slicing into the mound, and widening out to include the greater portion of the mound (Fig. 1). The trench was extended entirely around the central rock structure, the rocks were cleaned off, sketched and photographed, after which they were carefully removed in order that the earth beneath might be investigated as well as the structure itself.

Mound Construction, Burials, and Distribution of Artifacts

Although an earlier excavation had partially destroyed the mound structure, still some idea of its construction was gained by carefully observing the remaining portion. At least two pits resulting from this previous excavation could be traced, one of which cut into the north and west sides of the central vault (Fig. 1). At the bottom of this intrusive pit, and at a depth slightly below the floor of the vault, were found three small, thin pieces of iron, probably from a broken excavation tool. Had not the extent of the pit been carefully noted the use of iron would certainly have been attributed to the builders of our mound.

The mound had been constructed by first placing a layer of flat limestone slabs directly in the original ground in a rough circle 18 to 19 feet in diameter. The slabs used throughout were of limestone similar to the numerous outcrops along the slope of the ridge a hundred feet to the south of the mound. Except for the floor of the vault, the slabs varied in thickness from 5 to 20 cms., and in length from 25 to 100 cms. They were apparently broken from the outcrop on natural cleavage planes with no evidence of subsequent shaping. The floor of the vault was made up of three thin layers of slabs, the bottom-most layer averaging 2 to 4 cms. in thickness, the upper two somewhat more. These floor slabs were carefully fitted together presenting the appearance of a flag-stone floor. They extended only to the edge of the vault wall (see large section, Fig. 1) and were apparently laid at the same time as the first layer of the surrounding ring.

There was no indication of disturbance of the original humus zone under the rock structure, except at the late intrusive pits, the marks of decayed vegetable matter showing clearly on the under side of the stone slabs. In this underlying, undisturbed humus zone were found several flint chips, but no artifacts.

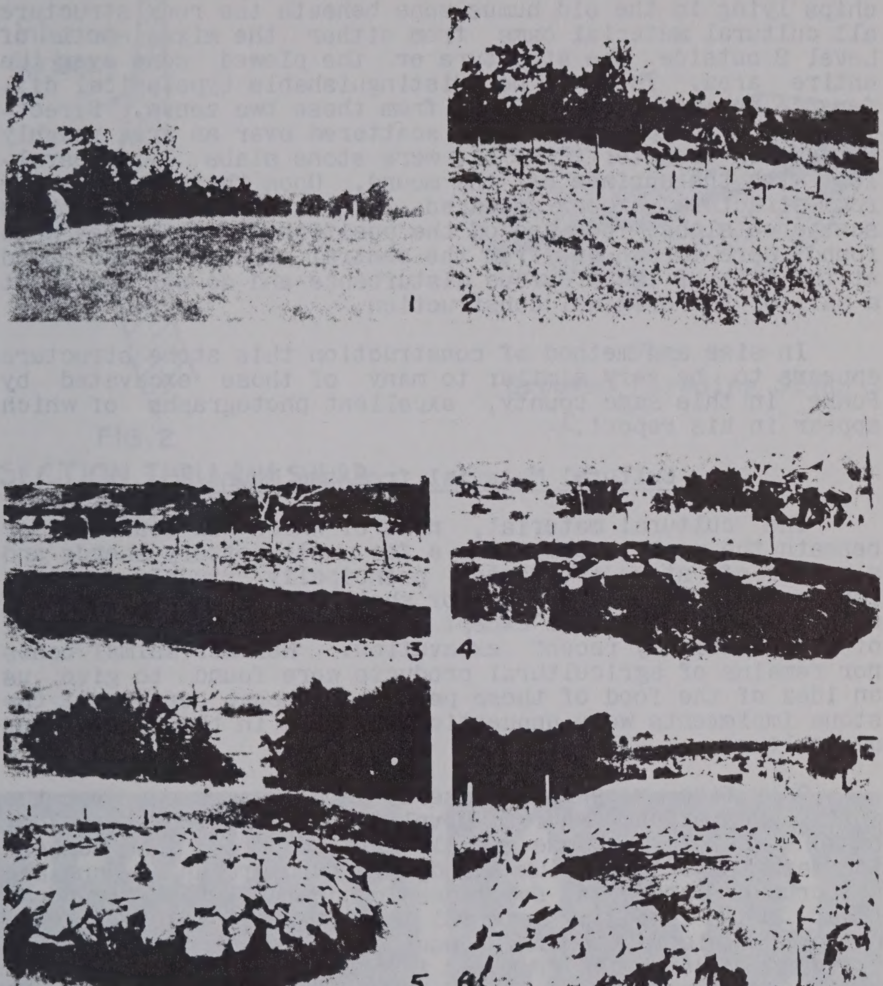
Building up from the initial layer of slabs the structure was carried in a ring surrounding a vertical-walled, rectangular vault, probably 7 or 8 feet in length. Only one side of the vault remained, the length of this section being

7 feet, although the three-layer floor occupied an area 8.25 feet in length. The earlier excavation had cut through the entire west side of the vault floor so that nothing more than a guess can be made as to its original width. Assuming the vault to have been centrally located within the total structure, its width would have been 5 or 5.5 feet.

The walls of the vault were continued up forming a fairly smooth, vertical surface. The outer ring of stone was built up integrally with the vault wall using thinner slabs toward the outer edge which gradually became more and more sloping (Fig. 1). The original height of the vault could not be determined, but was presumably somewhat higher than our excavation disclosed. Lying on the vault floor were two infant skeletons (Bol:1-2 and -3), badly crushed by heavy rock slabs and earth thrown upon them when the vault was filled in. They had not been disturbed by the excavation of thirty years ago. The space above the vault floor was filled with rock slabs and earth through which were scattered numerous fragments of human bones. Immediately below the plow line was a crushed male, adult skull (Bol:1-1) one side of which shows evidence of exposure to fire, although none of the scattered long bones show any such signs, nor do the two crushed infant burials. It is quite possible that the scattered long bones and the skull belong to the same individual, representing a single burial which had been disturbed by the earlier excavation. Occasional badly charred skull fragments were found in the loose earth outside the stone structure, but the bones of the vault, except for one side of the adult skull, show no evidence of cremation.

The vault, then, seems to have been filled up with earth and rocks, covering the burials, after which the top layer of slabs of the outer ring were doubtless continued over the entire structure forming a relatively smooth domed mound of rocks. This, in turn, was covered with earth scooped up from the immediate vicinity of the mound. The original thickness of this final earth covering could not be determined. It was definitely established, however, that the earth all around the stone mound had been removed to a depth of approximately half a foot, the depth of the original humus zone (Fig.1). Plowing, which disturbs to approximately the same depth as the humus layer, made it impossible to determine how far out the original humus had been removed. Fig. 1 shows the condition encountered outside the rock structure which is typical of the condition on all sides of the mound. Either the soil from the original mound had washed down filling in the area surrounding it, which is quite unlikely, or else the builders themselves had brought in additional earth from some distance to increase the fill on the mound. There was no noticeable depression in the immediate vicinity of the mound.

Below the plow line was a zone of mixed clay and humus (Level 2 in Fig. 1). All artifacts and sherds were found above the undisturbed yellow clay (Level 3) in either Level 1 or 2. The relatively small spaces between the rocks of the main structure were filled with earth, but not a single



1 - Mound cleared; axis staked out.
2 - Mound partially staked out and sod removed.
3 - 10-foot profile. Note valley of Bonne Femme Creek in distance.
4 - 15-foot profile showing scattered slabs near surface of mound.
5 - Excavation extended entirely around central rock structure exposing it on all sides.
6 - Central rock structure showing the one remaining wall of burial vault. Note 6-inch layer of dark earth beneath rocks.

Steps in the Excavation of Mound Bol:1

artifact was recovered from that area. Aside from the stone chips lying in the old humus zone beneath the rock structure, all cultural material came from either the mixed earth of Level 2 outside the structure or the plowed zone over the entire area. There is no distinguishable typological difference between the artifacts from these two zones. Directly beneath the plow-line, and scattered over an area roughly 25 feet in diameter (Fig. 1), were stone slabs lying parallel with the surface of the mound. Upon their removal the rock structure proper appeared. It is assumed that these scattered slabs, because of the position in which they were found, were thrown out from the central portion of the mound at the time of the previous disturbance and do not represent a part of the original construction.

In size and method of construction this stone structure appears to be very similar to many of those excavated by Fowke in this same county, excellent photographs of which appear in his report.[1]

Cultural Material from the Mound

The cultural material, none of which was found in or beneath the vault, comprises a few small pottery sherds and a number of stone artifacts, principally crudely chipped implements of chert. No bone or shell objects were found and no historical material except the pieces of iron in the pit of the relatively recent excavation. Neither animal bones nor remains of agricultural products were found to give us an idea of the food of these people, although certain of the stone implements were unquestionably used in the practice of agriculture.

Only five very small sherds were recovered from the entire excavation, two from Level 2 and three from the plowed zone, Level 1. These are all grit tempered, the tempering material being medium sized, rounded grains of sand and not crushed stone as sometimes found in grit-tempered pottery. This tempering material is relatively abundant and uniformly distributed throughout the paste. The texture varies from dense and granular in the thick sherds to a much more porous or cellular structure in the thin ware. The thick, denser sherds are a buff-brick color throughout, the surface color approximating that of the interior. The thin cellular sherds contain a light colored tempering material which is more angular in form and which is relatively less abundant. Both interior and surface present small cells once occupied by the tempering material. The interior color ranges from dark brown to grey while the surface is very dark, almost black on one sherd.

No distinction of wares can be made from so few specimens, but there is a possibility that two wares are actually represented in this small sample. The outer surface on all sherds is uniform and smooth, but not polished or burnished

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[1] Fowke, op. cit.

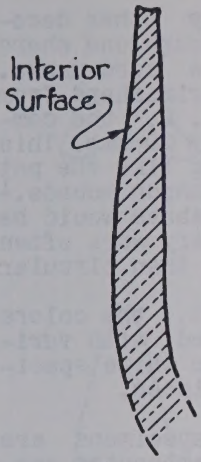
Interior Surface

FIG. 2
SECTION THRU RIM SHERD
FROM Bol:2

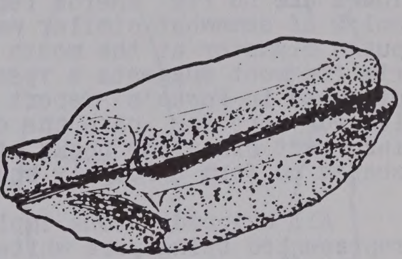

Fig. 6
Grooved Abrading Stone

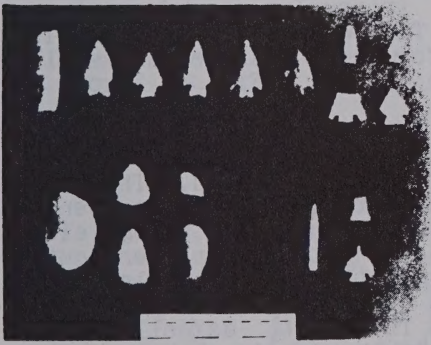

Fig. 4

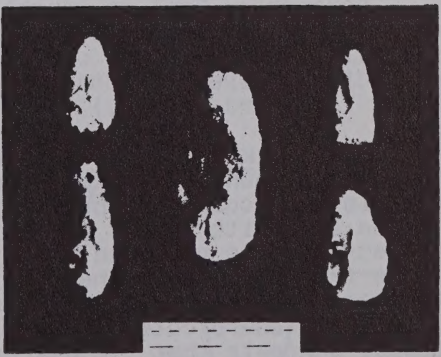

Fig. 5

There is no indication of slip or paint nor any other decorative technique such as incising, etc., although one sherd shows faint parallel impressions which may be cord marks. There are no rim sherds represented, but a rim sherd from Bol:2 of somewhat similar ware is shown in Fig. 2, the computed diameter at the mouth being approximately 20 cms. This rim fragment suggests a vessel shaped something like the pot pictured in Fowke's report from one of the Dawson mounds.[1] If such were the case the diameter indicated above would be incorrect since the necks of this type of pottery ware often shaped to form a roughly square opening rather than circular.

All chipped stone implements are of chert, the colors represented being pure white, pink, grey and red, with various combinations of these shades. However, the white specimens predominate, particularly in the larger pieces.

Projectile points: Since most of the specimens are broken, a complete description of the forms represented cannot be adequately given. Figure 3 shows the most frequent types with missing portions restored. The chipping is relatively fine, the edges being straight and sharp. The flakes from which the points were fashioned are relatively thin, are seldom curved in the plane of the flake, and are never chipped to produce a bevelled or twisted form.

Drills: Chipped stone drills are of three types (Fig. 4): the simple, long, slender type which is oval in cross-section; the expanded base type with an oval section and a point similar to the first; and the "reworked projectile point" type with a large, diagonal notched body and a short, slender point.

Scrapers: Oval or roughly triangular shaped scrapers of chert were fairly common. They were made by chipping flat flakes on one side only, forming a sharp edge usually extending entirely around the artifact. (Fig. 4, group in lower left hand corner.)

Blades, knives, etc: Numerous crudely chipped implements were found which were ovoid or leaf shaped. The chipping is very coarse, the flaking extending from the center to the edge with little or no fine secondary chipping along the edge. This produced a wavy-edged, thick implement quite crude in appearance. One artifact (Fig. 5, lower left) has been secondarily chipped along the edges to produce a straight, sharp cutting edge. This fact, as well as its shape, suggests that it was probably used as a knife or a scraper. One very large implement (Fig. 5, center) is very crudely chipped. It is 20 cms. long, 9 cms. wide, and 5 cms. thick at the center. Both ends have been secondarily chipped, either intentionally or by use, to produce fairly straight, sharp edges. This was probably hafted and used as a spade or hoe.

Miscellaneous stone objects not of chert: A few very

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[1] Fowke, op. cit., p. 34.

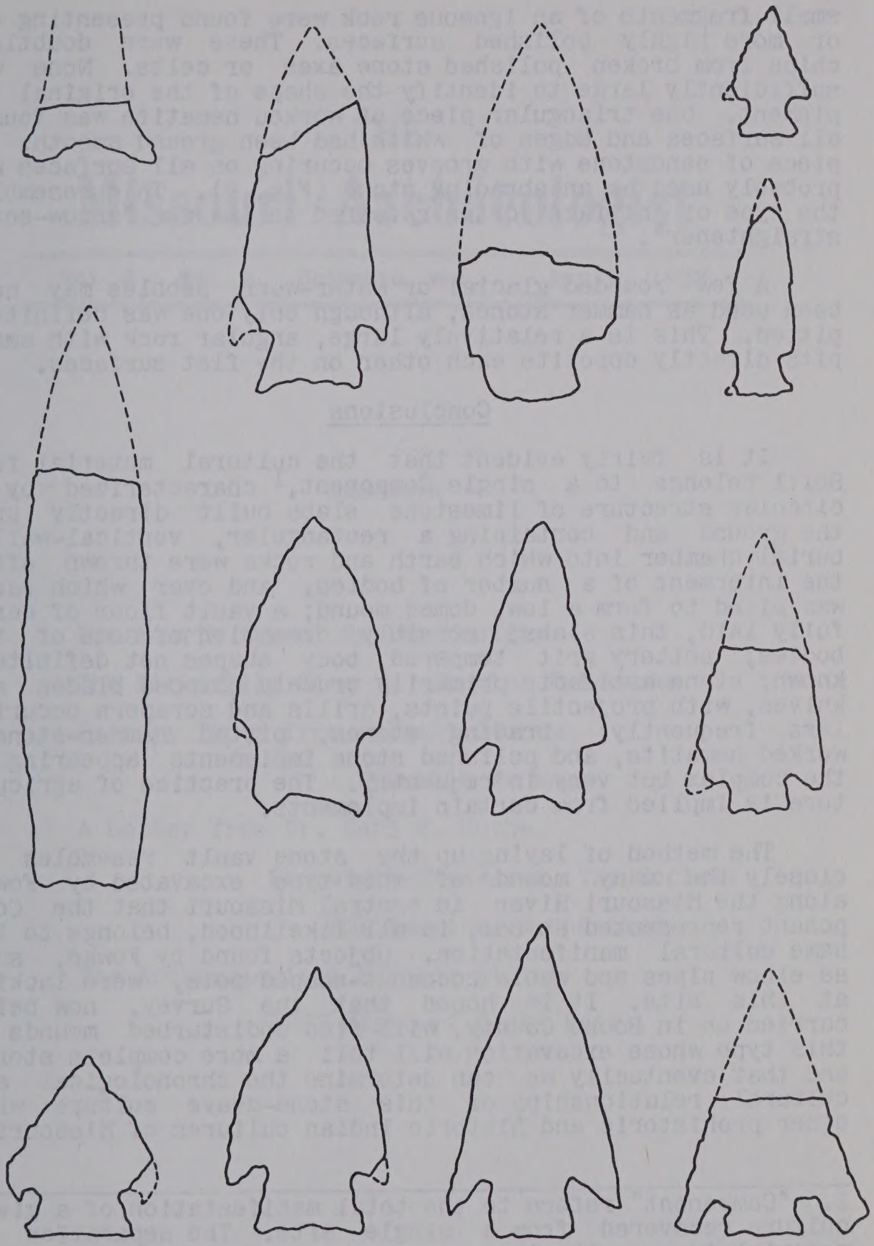

FIG. 3

TYPICAL FORMS OF PROJECTILE POINTS

Cm's.
0 1 2 3
Inches
0 1/2 1

small fragments of an igneous rock were found presenting one or more highly polished surfaces. These were doubtless chips from broken polished stone axes or celts. None was sufficiently large to identify the shape of the original implement. One triangular piece of worked hematite was found, all surfaces and edges of which had been ground smooth. A piece of sandstone with grooves occuring on all surfaces was probably used as an abrading stone (Fig. 6). This resembles the type of artifact often referred to as an "arrow-shaft straightener".

A few rounded glacial or water-worn pebbles may have been used as hammer stones, although only one was definitely pitted. This is a relatively large, angular rock with small pits directly opposite each other on the flat surfaces.

Conclusions

It is fairly evident that the cultural material from Bol:1 belongs to a single Component,[1] characterized by a circular structure of limestone slabs built directly upon the ground and containing a rectangular, vertical-walled burial chamber into which earth and rocks were thrown after the interment of a number of bodies, and over which earth was piled to form a low, domed mound; a vault floor of carefully laid, thin slabs; possibly cremation of some of the bodies; pottery grit tempered, body shapes not definitely known; stone artifacts primarily crudely chipped blades and knives, with projectile points, drills and scrapers occuring less frequently; abrading stones, pitted hammer-stones, worked hematite, and polished stone implements appearing in the complex but very infrequently. The practice of agriculture is implied from certain implements.

The method of laying up the stone vault resembles so closely the many mounds of this type excavated by Fowke along the Missouri River in central Missouri that the Component represented at Bol, in all likelihood, belongs to the same cultural manifestation. Objects found by Fowke, such as elbow pipes and whole cocoanut-shaped pots, were lacking at this site. It is hoped that the Survey, now being carried on in Boone County, will find undisturbed mounds of this type whose excavation will tell a more complete story, and that eventually we can determine the chronological and cultural relationships of this stone-grave culture with other prehistoric and historic Indian cultures of Missouri.

---

[1] "Component" refers to the total manifestation of a given culture recovered from a single site. The separation of material from a site into one or more components is made on the basis of typology, a task in which exceeding caution must be exercised unless clear-cut stratigraphic superposition exists.

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1937 Missouri State Fair

THE

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The Fourth Annual Spring Meeting

The Fourth Annual Spring Meeting of the Missouri Archaeological Society will be held in Springfield, Missouri, on Friday, May 13.

The State Teachers College, through the generosity of its President, Dr. Roy Ellis, has offered its facilities. The meetings will be held in Room 40, on the Third Floor of the Administration Building. There will be an adjoining room where members of the Society may display their relics.

The college cafeteria is available for those who prefer to take their meals on the campus.

All of the meetings are open to the public.

The program has not been completed at the time this Bulletin must go to press, but the following have agreed to speak:

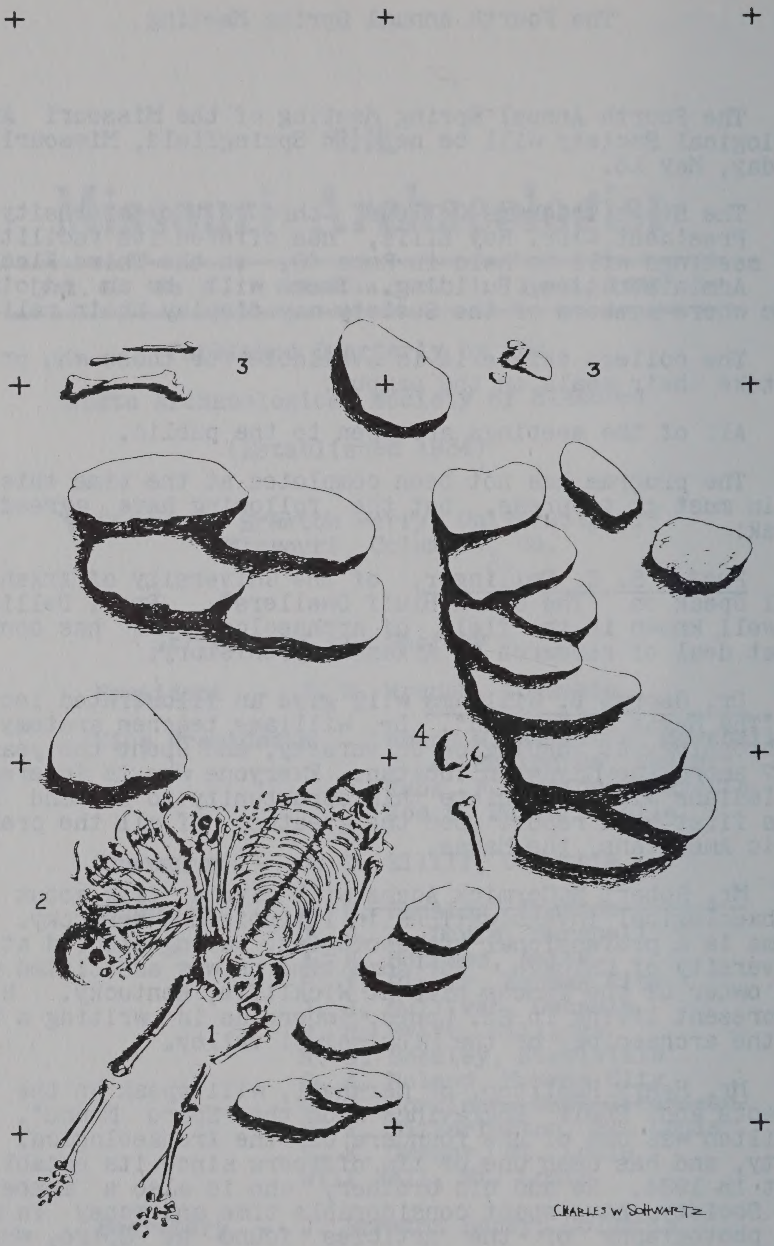
Prof. S. C. Dellinger, of the University of Arkansas, will speak on "The Ozark Bluff Dwellers". Prof. Dellinger is well known in the field of archaeology, and has done a great deal of research in Arkansas prehistory.

Dr. George D. Williams will give an illustrated lecture on "The Mayas of Yucatan". Dr. Williams teaches anatomy and anthropology at Washington University, and spent the year of 1927 among the Mayas in Yucatan. Everyone who is interested in Indians will appreciate this opportunity to see and hear this first-hand report upon the greatest of all the prehistoric Americans, the Mayas.

Mr. Robert McCormick Adams will give a talk about his archaeological investigations in Illinois and Kentucky. Mr. Adams is a professional archaeologist, having studied at the University of Chicago. For some time he was associated with the owner of the famous site at Wickliffe, Kentucky. He is at present living in St. Louis, where he is writing a book on the archaeology of the Mississippi valley.

Mr. Henry Hamilton, of Marshall, will speak on the "Artifacts and Shell Engravings from the Spiro Mound". Mr. Hamilton was one of the founders of the Archaeological Society, and has been one of its officers since its establishment in 1934. He and his brother, who is also a member of the Society, have spent considerable time and money in making photographs of the articles found at Spiro, which, unfortunately, became scattered through the efforts of commercial dealers in Indian relics.

Dr. J. Brewton Berry, of the University of Missouri, will speak on "The Origin of the Indian".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3
4
2
1
CHARLES W SCHWARTZ

GROUND PLAN
THE KIRKSVILLE SITE

The Kirksville Site

Charles Fairbanks

The site is located in the yard of the Sloan's Point School six miles southwest of Kirksville, Missouri. It consists of a low domed mound on a ridge about a quarter of a mile from the Chariton River. The Chariton is a tributary of the Missouri, flowing through a country whose features are narrow valleys and fairly high ridges with limestone outcrops. A great deal of secondary erosion has occurred.

The mound had been partly graded about three years ago. However, from many similar mounds in the vicinity it appears to have been from ten to fifteen feet across and perhaps two feet high. It was opened early in September by the pupils of the School. When a skeleton was discovered work was stopped and the bones covered with boards.

The work was continued under my direction and the bones completely exposed. There was apparently a large central "vault" composed of natural limestone slabs. The slabs were leaned together and large stones placed over the center. These top stones did not attach to the sides of the "vault", but lay directly on the earth and burials in the center. The stones range in diameter from a few inches up to twenty. Most of the slabs were local limestone but a few pieces of sandstone, probably glacial, were found. None of the "vault" seemed to have any definite arrangement, but rather resembled a pile or heap.

Four skeletons or parts of skeletons were found. Burial No. 1 (see Ground Plan) was fully extended on the back, with hands on the pelvis, in a northeast-southwest direction, with the head toward the southwest. The skull was badly broken, the ribs each broken once and separated from the vertebrae; the femora each broken, all breaks posthumous. The incisors showed typical "shovel-shaped" development. The only associated objects were two small side-notched projectile points and several large bird bones, probably turkey. The projectile points were rather thin, but more ridged than typical Mississippi points. None of the objects was found in direct association, but in the dirt fill around the skeleton.

Burial No. 2 was in a flexed position on the right side, with the long axis in a northeast-southwest direction, head toward the northeast. The lower legs were flexed against the femora, which lay at a forty-five degree angle to the vertebrae. The arms were bent, hands under the chin. All bones were broken posthumously. The distal end of the femur lay over the pelvis of Burial No. 1. This pelvis was not badly broken and did not appear to be disturbed. No associated artifacts were found.

Burial No. 3 consisted of fragments of skull and long bones of leg, all badly broken. The skull lay under one of the large slabs and had been disturbed by rodents. From the position of skull and long bones it was apparently an extended burial in east-west direction, with the skull toward the west. There were no associated artifacts. Burial No. 4 consisted of only small pieces of skull and one piece of long bone. Position of burial could not be determined. Burials 1, 2, and 4 seem to belong to one group well within the "vault". Burial No. 3 may lie outside the central area.

The only pottery found consisted of reddish brown ware without decoration, grit-tempered (one sherd). Little pottery has been reported from this region.

Similar mounds in the vicinity were visited, particularly on the farms of Tom Scrivens and Hubert Collett. On each farm there are about a dozen low mounds lying on the ridges. The mounds on the Scrivens farm have been eroded to reveal the limestone slabs. Several of these have been opened, yielding human bones. One of the burials seems to have been a bundle burial. One of the mounds on the Collett farm, opened about twenty years ago, contained six burials in the central "vault". On the Scrivens farm a number of leaf-shaped points have been found. One find consisted of about a dozen blades near a large spring. On the Scrivens farm was found a polished stone ax with three-quarters groove and flattened straight (1).

Scrapers, flakes, and bunts are found in the vicinity. The common material for all chipped work in a fine white flint. The mounds all seem to be of low domed type with central stone "vaults".

The mound of the Sloan's Point School seems to belong to the same complex as the Dawson Mounds, particularly No. 7, described by Fowke (2). The absence of pottery is perhaps notable. The side-notched points seem to be a Woodland variant rather than Mississippi. The leaf-shaped points suggest a Red Ocher variant. However, as the leaf-shaped blades were found outside the mounds they may not belong to the same complex. Other leaf-shaped blades have been found on the surface. The mounds are well drained, and should, with proper excavation, yield well-preserved material. However, except for the leaf-shaped blades, the material does not seem to be extraordinary.

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(1) Gerard Fowke, Stone Art, Thirteenth Annual Report, Bureau of American Ethnology, p. 68.

(2) Gerard Fowke, Antiquities of Central and Southeastern Missouri, Bulletin 37, B. A. E., p. 32.

POTTERY TYPES FROM PULASKI COUNTY

Franklin Fenenga

During July and August, 1936, the writer visited and made surface collections from a number of sites in Pulaski, Camden, and Laclede Counties of South Central Missouri. These sites were in the same area as those explored by Gerard Fowke and described by him in B.A.E. Bulletin 76, "Cave Explorations in the Ozark Region of Central Missouri."

Mr. Fowke's publication contains excellent descriptions of many sites as well as some good plates illustrating the bone and stone artifacts which he found in the caves. Descriptions of the potsherds which were found in considerable numbers are limited to a few brief sentences referring only to the fact that fragments of vessels were in evidence.

Pottery is recognized as presenting diagnostic features of prime importance in the classification of cultures. In view of this fact, the writer made it a particular point to preserve and study the potsherds which he found during his visits to these sites.

Considering the treatment of the paste (i.e. temper) and the shape of the vessel as primary elements of ceramic manufacture, two pottery types are recognized.

Type A. grit tempered and amphora shaped.

Type B. shell tempered and bowl shaped.

Considering the treatment of the exterior as an important but secondary element, Type A. can be divided into two subtypes.

Type A. cr.-cord roughened exterior.

Type A. sm.-smooth exterior.

An outline of pottery traits follows:

POTTERY TYPE A

Temper and Paste: The temper is grit. The color of the paste is uneven and varies from reddish-brown to gray. Its texture is coarse with a tendency to crumble when wet.

Shape: The body is amphora (elongated globular) with conoidal base. The lips are slightly flaring. The lip surface is either square or rounded.

Treatment of the Exterior Surfaces: The color is irregular and variable due to poorly controlled firing. The surface (in A.cr.) is decorated by cord impressions produced by a cord wrapped paddle. There is never any punch, stamp, incised line, or painted decoration.

Wall Thickness: Medium to thick. Thickness often varies in two sherds from the same vessel. Sherds from near the bottom are thicker than those from near the rim.

Secondary Features: Handles, lugs, legs, and flanges are entirely lacking.

SUBTYPE A.sm.

This type differs from A.cr. only in the treatment of the exterior and in thickness of the wall.

Treatment of the Exterior: Surfaces are carelessly, or occasionally carefully, smoothed.

Wall Thickness: The walls of sherds of Type A.sm. are thicker than the walls of cord roughened sherds.

POTTERY TYPE B

Temper and Paste: The temper is crushed shell. The color of the paste varies but is lighter than that of Type A. Its texture is medium fine. The surface has a tendency to flake but not to crumble.

Shape: The body is bowl shaped with a flat and, possibly in some instances, a rounded bottom. The rim is vertical and the lip surfaces are horizontal and square.

Treatment of the Surfaces: Color varies but is not dark. The surface is always smooth but never polished, painted or decorated in any manner.

Wall Thickness: Not as thick as the walls of Type A sherds.

Secondary Features: All secondary features are absent.

CONCLUSIONS ON POTTERY TYPES

It appears from a comparison of these outlines of the pottery types found in Pulaski County with Deuel's outlines of the pottery traits of the Basic Cultures of the Mississippi Valley* that Pottery Type A in temper, shape, and treatment of the exterior, is typical of the pottery which occurs at sites belonging to the Woodland Pattern. Pottery Type B in temper and in the single shape recognized conforms closely to the descriptions of the pottery of the Mississippi Pattern. Type B lacks the variety of form, the addition of secondary features, the painting, the polishing, and decoration of the exterior which characterizes pottery of the Mississippi Pattern.

RELATIVE OCCURRENCE OF TYPE A AND TYPE B SHERDS

The regularity of percentage of occurrence of each of the types of pottery is worthy of note. Type B sherds, although they represent only 2.5% of the total number of sherds, were found at every site. At no site did they represent more than 6% of the sherds found.

Cord roughened sherds represent between 76 and 81% of the sherds at every site except Carroll Cave where an unusually high number of smooth sherds was found.

There follows a detailed table of the relative occurrence of Type A and Type B sherds:

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* See American Anthropologist, Vol. 37, pp. 429ff.

		TYPE A				TYPE B	
Site	County	A. cr.		A.sm			
		No.	%	No.	%	No.	%
Gier Cave	Pulaski	1244	80.0	302	19.0	18	1.0
Deckler Cave	Pulaski	110	77.5	24	16.9	8	5.6
Yoark Cave	Pulaski	72	80.9	15	16.9	2	2.2
Laquey Site	Pulaski	311	76.4	71	17.4	25	6.1
Carroll Cave	Camden	131	67.2	63	32.3	1	0.5
Osage Fork S.	Laclede	270	81.0	49	14.8	14	4.2
Totals		2138	78.3	524	19.2	68	2.5

* *

The 1937 State Fair Exhibit

The Archaeological Exhibit at the Missouri State Fair, under the direction of Mr. J. B. L. Davis, of Marshall, has enjoyed three years of success and progress. The following entered their collections in the 1937 display:

Miss Sina Moas, Route 1, Sedalia, Mo.
Miss Opal Ford, Marshall, Mo.
Miss Denis, Marshall, Mo.
H. W. Hamilton, Marshall, Mo.
M. A. Johnson, Sedalia, Mo.
R. Rentschler, Route 5, Fulton, Mo.
Mr. Herndon, Marshall, Mo.
Earl Waggoner, Marshall, Mo.
J. M. Shippee, North Kansas City, Mo.
Alva Gauldin, Malta Bend, Mo.
T. A. Cunningham, Sedalia, Mo.
Wm. Lloyd Elder, Miami, Mo.

First prize, $20, was awarded to Mr. Shippee, and second prize, $15, went to Mr. Gauldin. Ribbons were presented to Mr. Rentschler for having the best collection from Callaway county, and to Mr. Johnson for the best collection from Pettis county. The best school collection, which also received a ribbon, was that entered by Mr. Elder for the Pleasant Grove School, of Miami.

Mr. J. B. L. Davis has earned the gratitude of the Society, not only for the success which he has brought to this feature of the State Fair, but also for his endeavor to make the archaeological exhibit of educational value to the state and of service to the study of archaeology.

CORRESPONDENCE

The Missouri Archaeologist of June, 1937, containing the article by Mr. J. A. Eichenberger ("Notched Chipped Implements Classified") aroused a great deal of interest. Requests for copies of the bulletin have come from individuals and institutions from New York to California. The article was reprinted in The Wisconsin Archaeologist.

From the various comments received we are printing here a portion of a letter from Dr. Carl E. Guthe, Secretary-Treasurer of The Society for American Archaeology. This is from a personal letter to the Editor.

My dear Berry:

I want to thank you for sending me a copy of the "Missouri Archaeologist," which contained Mr. Eichenberger's article "Notched Chipped Implements Classified." I read this brief statement with considerable interest and want to congratulate the author upon his breadth of view and his conservative attitude. The problem of classifying stone points is one which has been tackled by many men, and the resulting classifications are different in many details. Each one has some contribution to make to the subject, and Mr. Eichenberger's is no exception. He has done a good job.

I have only one serious criticism to make of the whole article and that is with reference to the record sheet form which appears upon the inside back cover. This catalogue form makes considerable fuss about the types, the variation, and the special features. Such an attitude is all very well in itself, but I fear that the data on where the objects were found have suffered as a result. From an archaeological point of view, the knowledge that a given specimen came from a particular county or state is not sufficient. We should like to know the conditions under which it occurred. That is, was it a surface find, or was it obtained through excavation? It is also important to know whether it came from a village site or from a cemetery. A more exact location is also necessary, either in terms of a given farm whose owner's name is recorded, or in terms of a township and range as established by Government surveyors. It is probably of equal importance to know what kind of materials were associated with the stone points, that is, the type of pottery, bone implements, and skeletons if any such existed. You recognize, of course, that I am speaking as a professional archaeologist. It is obvious that professional and non-professional students of American archaeology are becoming better acquainted and more sympathetic toward each other. Mr. Eichenberger's article is a step in the right direction.
.... Sincerely, Carl E. Guthe.

THE
Missouri Archaeologist

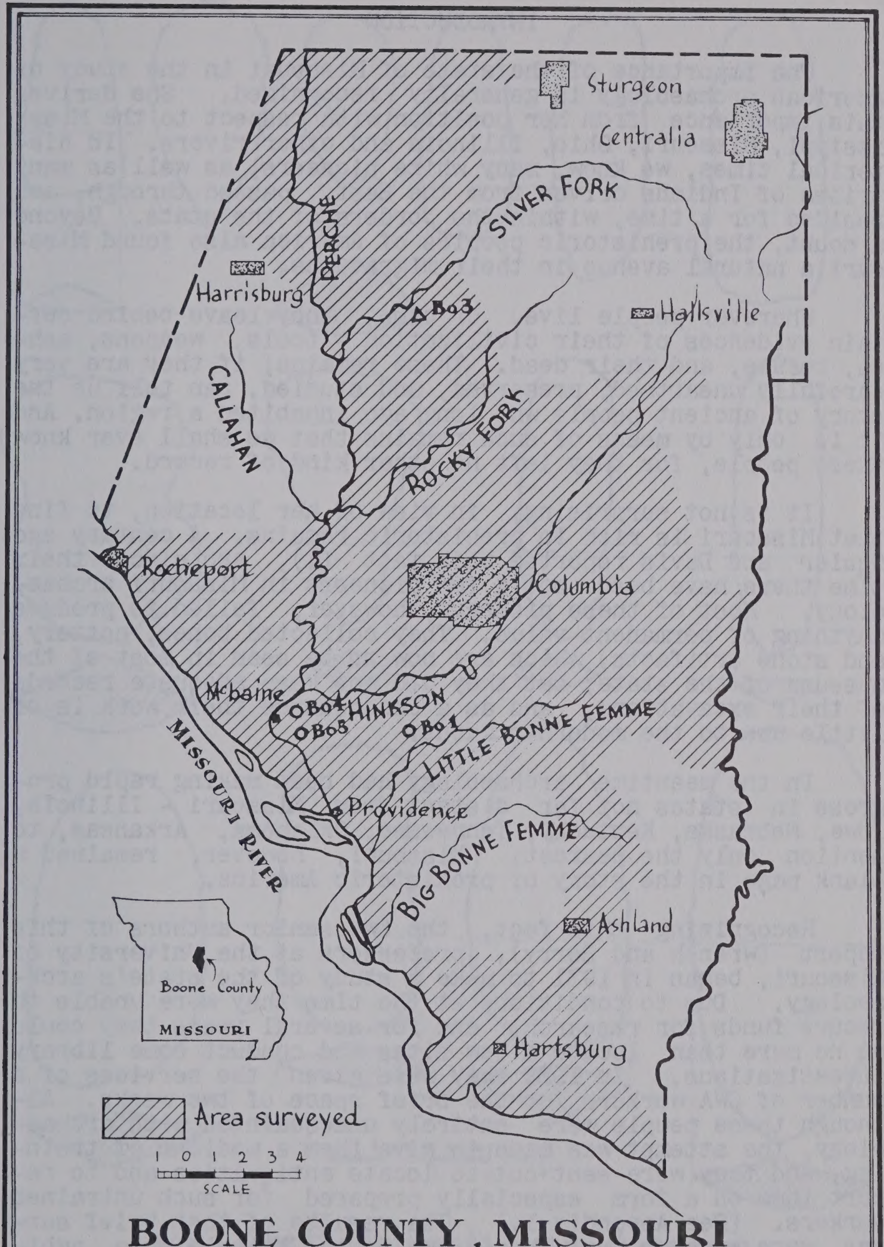
Vol. 4 No. 3 Columbia, Mo., September, 1938

ARCHAEOLOGICAL INVESTIGATIONS IN BOONE COUNTY, MISSOURI

By

Brewton Berry
J. E. Wrench
Carl Chapman
Wilber Seitz

ARCHAEOLOGICAL INVESTIGATIONS
IN
BOONE COUNTY, MISSOURI


Sturgeon
Centralia
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PERCHE
Harrisburg
Bo3
Hallsville
CALLAHAN
ROCKY FORK
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Columbia
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HINKSON
Bo5
Bo1
LITTLE BONNE FEMME
MISSOURI RIVER
Providence
BIG BONNE FEMME
Ashland
Boone County
MISSOURI
Hartsburg
Area surveyed
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SCALE

BOONE COUNTY, MISSOURI

INTRODUCTION

The importance of the state of Missouri in the study of American archaeology is generally recognized. She derives this importance from her position with respect to the Mississippi, Missouri, Ohio, Illinois and other rivers. In historical times, we know, many white pioneers, as well as many tribes of Indians driven from the East, passed through, and resided for a time, within the borders of the state. Beyond a doubt, the prehistoric peoples of America also found Missouri a natural avenue in their migrations.

Wherever people live, or camp, they leave behind certain evidences of their civilization - tools, weapons, ashes, refuse, and their dead. These remains, if they are very carefully unearthed, preserved, and studied, can tell us the story of ancient people who long ago inhabited a region. And it is only by means of such remains that we shall ever know these people, for they left no other kind of record.

It is not surprising, in view of her location, to find that Missouri is rich in prehistoric remains. A century ago Squier and Davis reported this fact (1), and since their time there have been not a few pioneers in Missouri archaeology. Most of these pioneers, however, failed to produce anything of permanent value. They collected bones, pottery, and stone artifacts, which are now to be seen in most of the museums of the state; but they did not keep adequate records of their excavations, and as a consequence their work is of little use to the modern student.

In the meantime archaeology had been making rapid progress in states not far distant from Missouri - Illinois, Iowa, Nebraska, Kentucky, Tennessee, Oklahoma, Arkansas, to mention only the nearest. Missouri, however, remained a blank page in the story of prehistoric America.

Recognizing this fact, the two senior authors of this report (Wrench and Berry), professors at the University of Missouri, began in 1931 to make a study of the state's archaeology. Due to conditions at the time they were unable to secure funds for research, and for several years they could do no more than locate a few sites and conduct some library investigations. In 1934 they were given the services of a number of CWA workers for the brief space of two weeks. Although these people were entirely unacquainted with archaeology, the attempt was made to give them a modicum of training, and they were sent out to locate antiquities and to report them on a form especially prepared for such untrained workers. (See Appendix 1.) The results of that brief survey were encouraging, and a few months later a more ambitious project, under the FERA, was inaugurated.

This second project enlisted the services of about

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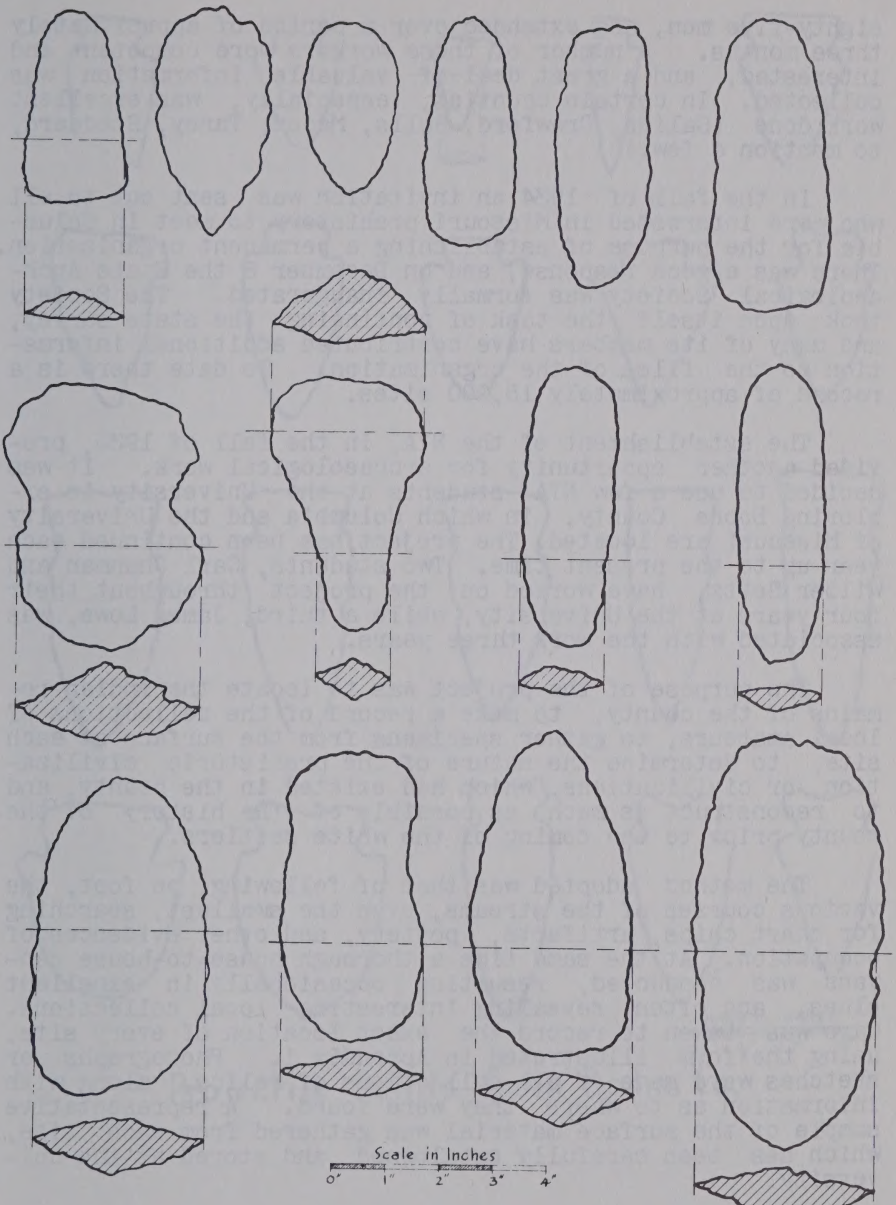
(1) E.G.Squier and E.H.Davis, Ancient Monuments of the Mississippi Valley, Smithsonian Contributions to Knowledge, No. 1, 1847.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Large Chert Artifacts from Boone Co.

eighty-five men, and extended over a period of approximately three months. A number of these workers were competent and interested, and a great deal of valuable information was collected. In certain counties, especially, was excellent work done (Saline, Crawford, Ralls, Macon, Taney, Stoddard, to mention a few.)

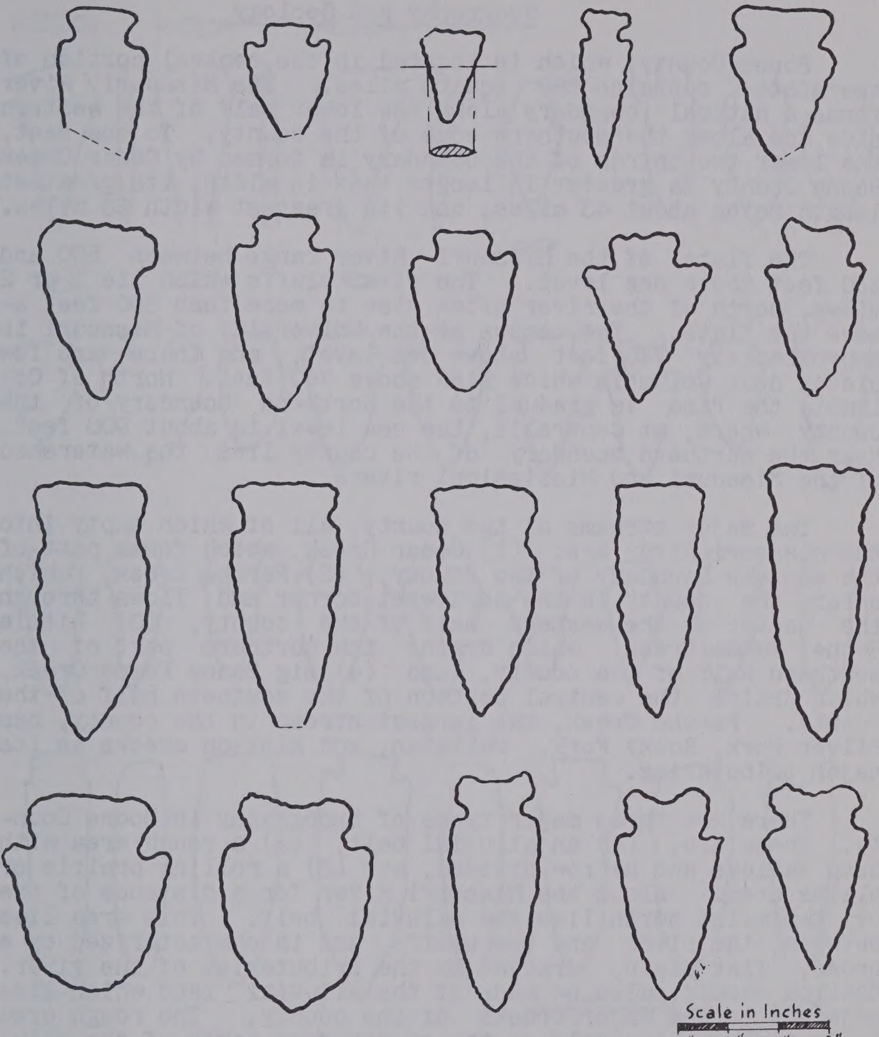
In the fall of 1934 an invitation was sent out to all who were interested in Missouri prehistory to meet in Columbia for the purpose of establishing a permanent organization. There was a good response, and on December 8 the State Archaeological Society was formally inaugurated. The Society took upon itself the task of continuing the state survey, and many of its members have contributed additional information to the files of the organization. To date there is a record of approximately 15,000 sites.

The establishment of the NYA, in the fall of 1935, provided another opportunity for archaeological work. It was decided to use a few NYA students at the University in exploring Boone County, in which Columbia and the University of Missouri are located. The project has been continued each year up to the present time. Two students, Carl Chapman and Wilber Seitz, have worked on the project throughout their four years at the University, while a third, James Lowe, was associated with the work three years.

The purpose of the project was to locate the Indian remains of the county, to make a record of the collections of local amateurs, to gather specimens from the surface at each site, to determine the nature of the prehistoric civilization, or civilizations, which had existed in the county, and to reconstruct as much as possible of the history of the county prior to the coming of the white settlers.

The method adopted was that of following, on foot, the various courses of the streams, even the smallest, searching for chert chips, artifacts, pottery, and other evidences of occupation. At the same time a thorough house-to-house canvass was conducted, resulting occasionally in excellent clues, and often revealing interesting local collections. Care was taken to record the exact location of every site, using the form illustrated in Appendix 1. Photographs or sketches were made of all collections of relics, along with information as to where they were found. A representative sample of the surface material was gathered from each site, which has been carefully catalogued and stored at the University.

In order to gain a more thorough idea of the culture of certain sites a few small excavations were undertaken, the results of which are given in this report.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Projectile Points from Boone Co.

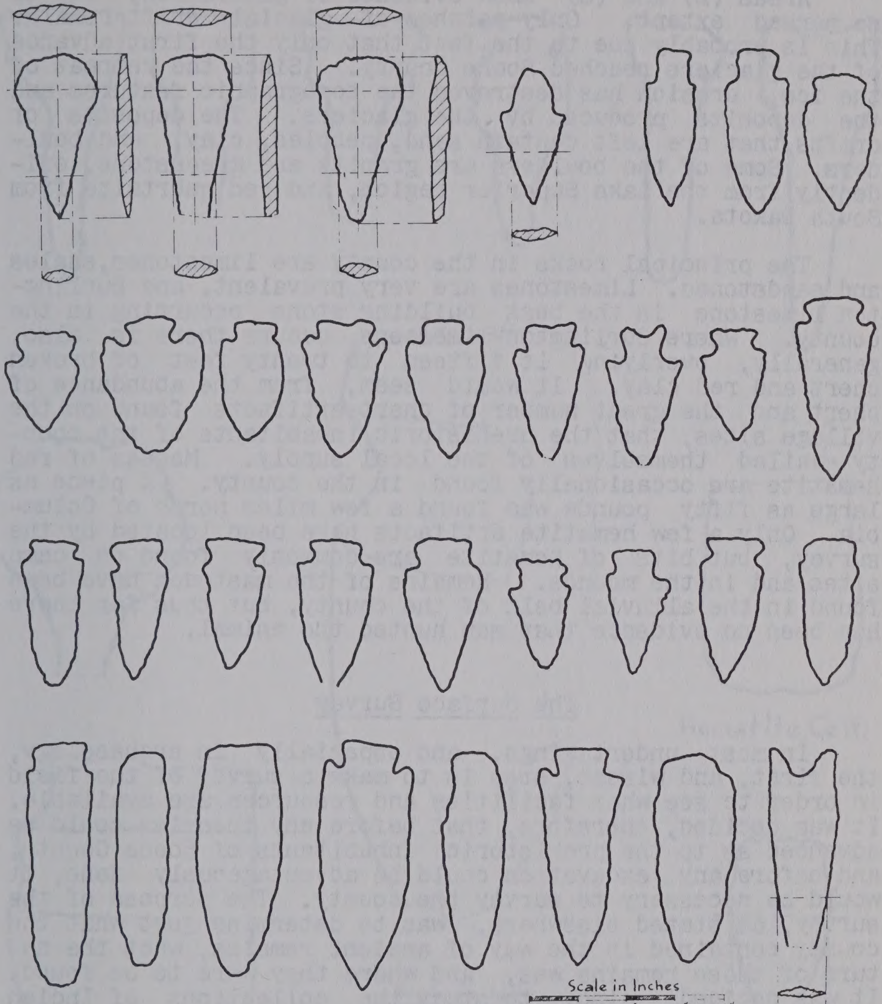
Geography and Geology

Boone County, which is located in the central portion of the state, contains 688 square miles. The Missouri River forms a natural boundary along the lower half of the western side and along the southern edge of the county. To the east, the lower two-thirds of the boundary is formed by Cedar Creek. Boone County is greater in length than in width, its greatest length being about 43 miles, and its greatest width 23 miles.

The flats of the Missouri River range between 500 and 550 feet above sea level. The river bluffs which lie 1 or 2 miles north of the river often rise to more than 300 feet above the flats. The campus at the University of Missouri is approximately 740 feet above sea level, and there are few places near Columbia which rise above 760 feet. North of Columbia the rise is gradual to the northern boundary of the county, where, at Centralia, the sea level is about 900 feet. Near the northern boundary of the county lies the watershed of the Missouri and Mississippi rivers.

The major streams of the county, all of which empty into the Missouri River are: (1) Cedar Creek, which forms part of the eastern boundary of the county, (2) Perche Creek, which enters the county in the northwest corner and flows through the center of the western half of the county, (3) Little Bonne Femme Creek, which drains the northern part of the southern half of the county, and (4) Big Bonne Femme Creek, which drains the central portion of the southern half of the county. Perche Creek, the largest stream in the county, has Silver Fork, Rocky Fork, Callahan, and Hinkson creeks as its major tributaries.

There are three major types of typography in Boone County. These are, (1) an alluvial belt, (2) a rough area with deep valleys and narrow divides, and (3) a rolling prairie or plains area. Along the Missouri River for a distance of one or two miles north lies the alluvial belt. This area lies between the river and the bluffs and is characterized by a broad, flat plain, drained by the tributaries of the river. Mention should also be made of the alluvial land which lies adjacent to the major creeks of the county. The rough area is in the southern half of the county just north of the alluvial belt. Loess covers the tops of the bluffs and the hills north from the river for a distance of three to six miles, losing its identity in finer wind-blown surface materials which cover the glacial drift. The many tributaries and streams which empty into the Missouri have broad valleys and narrow divides. The prairie or plains area is most pronounced in that section of the county which lies north and east of Columbia, although patches of the prairie area show up in several parts of the county. It is in this area that the headwaters of the tributaries of the Missouri River originate. The valleys of the streams in this area are not as deep as are those near the Missouri River, although there are some very high bluffs along both the Perche and Cedar creeks.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Knives & Points from Boone Co.

Areas (2) and (3) show evidence of glaciation, but to no marked extent. Only patches of glacial drift remain. This is probably due to the fact that only the first advance of the glaciers reached Boone County. Since the retreat of the ice, erosion has destroyed the topographic features and the deposits produced by the glaciers. The deposits or drifts that are left contain sand, pebbles, clay, and boulders. Some of the boulders are granite and greenstone, evidently from the Lake Superior region, and red quartzite from South Dakota.

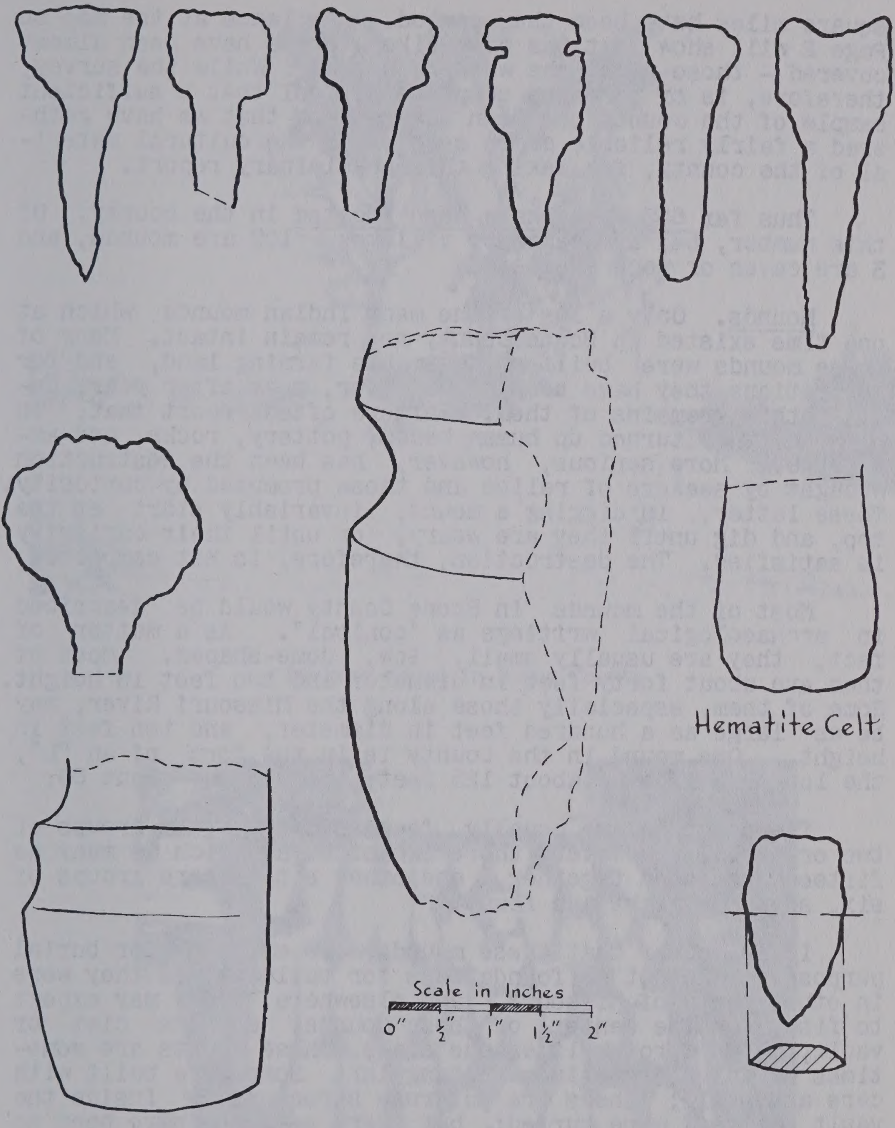
The principal rocks in the county are limestones,shales and sandstones. Limestones are very prevalent, and Burlington limestone is the best building stone occurring in the county. Where Burlington limestone occurs there is also, generally, overlying it fifteen to twenty feet of broken chert and red clay. It would seem, from the abundance of chert and the great number of chert artifacts found on the village sites, that the prehistoric inhabitants of the county availed themselves of the local supply. Masses of red hematite are occasionally found in the county. A piece as large as fifty pounds was found a few miles north of Columbia. Only a few hematite artifacts have been located by the survey, but bits of hematite are commonly found on camp sites and in the mounds. Remains of the mastodon have been found in the alluvial belt of the county, but thus far there has been no evidence that man hunted the animal.

The Surface Survey

In most undertakings, and especially in archaeology, the first, and wisest, step is to make a survey of the field in order to see what facilities and resources are available. It was decided, therefore, that before any theories could be advanced as to the prehistoric inhabitants of Boone County, and before any excavation could be advantageously done, it would be necessary to survey the county. The purpose of the survey, as stated elsewhere, was to determine just what the county contained in the way of ancient remains, what the nature of those remains was, and where they were to be found. It was decided, also, to study the collections of Indian relics which innumerable local amateurs had made, for such collections would often give clues about sites and cultures.

In the initial stages of the survey a few amateur enthusiasts proved very helpful. They had hiked over the region looking for relics, and they volunteered information as to the location of villages and mounds. However, the only way to make a thorough survey is to cover the country on foot, looking carefully for evidences of human occupation, and, at the same time, calling at every house and inquiring about possible sites. Every investigator, as he hiked over the county, carried on his person maps, to give him his bearings, and paper bags, in which to gather specimens from the sites located. This, briefly, has been the method used.

At this writing more than half of Boone County's 688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Miscellaneous Artifacts from Bo.Co.

square miles have been thus combed. A glance at the map on Page 2 will show that the most likely areas have been almost covered - those along the water courses. While the survey, therefore, is by no means complete, we feel that a sufficient sample of the county has been taken, and that we have gathered a fairly reliable cross section of the cultural material of the county, for making this preliminary report.

Thus far 653 sites have been located in the county. Of this number, 541 are camps or villages, 109 are mounds, and 3 are caves or rock shelters.

Mounds. Only a few of the many Indian mounds which at one time existed in Boone County now remain intact. Many of these mounds were built on desirable farming land, and for generations they have been plowed over, year after year, until nothing remains of them. Farmers often report that, in plowing, they turned up human bones, pottery, rocks, and artifacts. More serious, however, has been the destruction wrought by seekers of relics and those prompted by curiosity. These latter, in digging a mound, invariably start at the top, and dig until they are weary, or until their curiosity is satisfied. The destruction, therefore, is not complete.

Most of the mounds in Boone County would be described in archaeological writings as "conical". As a matter of fact, they are usually small, low, dome-shaped. Most of them are about forty feet in diameter and two feet in height. Some of them, especially those along the Missouri River, may be as large as a hundred feet in diameter, and ten feet in height. One mound in the county is in the form of an "L", the longer arm being about 125 feet, the shorter about 50.

These mounds are usually found singly, or in groups of two or three. However, there are sites at which as many as fifteen are found together, and other sites where groups of six, seven or eight are found.

It is clear that these mounds were erected for burial purposes, and not as foundations for buildings as they were in other parts of Missouri, and elsewhere. One may expect to find, at the center of these mounds, a crude cist or vault, made of rough limestone slabs. These vaults are sometimes circular, sometimes rectangular. Some were built with care and skill; others are but rude structures. Inside the vault the dead were buried; but there seems to have been no consistent method of disposing of the dead. Bodies are to be found lying on their backs, or on their sides; or bundles of miscellaneous bones were buried; and often fragmentary bones, a skull or a long bone, are unearthed. It would seem that some burials were primary, others secondary. Also, some of the bodies were obviously burned before burial, while others show no evidence of having been exposed to fire.

The builders of these mounds in Boone County were not in the habit of burying possessions with their dead. It is very seldom that any artifact is found with a skeleton. The

Largest Mound in Boone County

Collection of E. M. Harris

cultural material that does come from the mounds apparently found its way there by accident. Those who dig, therefore, in hopes of finding valuable relics will be disappointed.

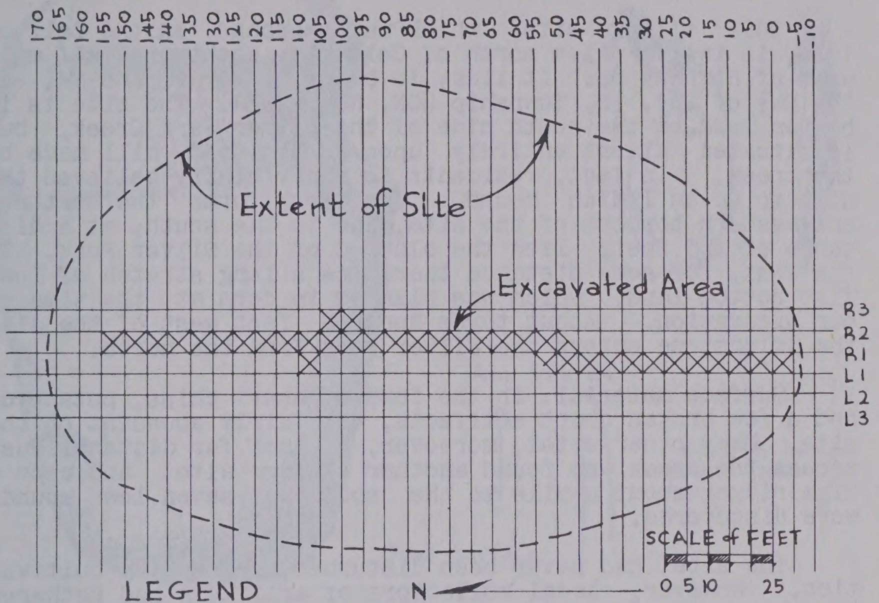
Village sites. Village sites were readily discovered by the presence of thin chert chips on the surface. Large, thin, sharp-edged chips are a result of the percussion methof of working chert, and are good indicators of human activity. On many sites only chips could be found; but usually more thorough search would lead to the finding of sherds, broken artifacts, and occasionally whole pieces.

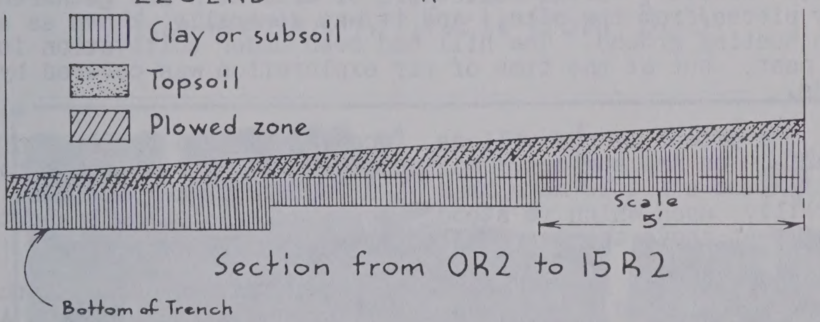
Most of the village sites are small, judging by the extent of the chips and cultural material. In fact, it would be more proper to refer to them as camp sites. Along the Missouri River, however,extensive sites were found, covering many acres; and large sites are by no means absent from the banks of smaller streams. House locations, however, are conspicuously lacking on Boone County sites.

Pottery. Pottery, the most useful culture trait for the archaeologist, is surprisingly scare on the surface of the sites in the county. It has been found on not more than 8% of the villages in the region. Of the sherds gathered, very few are rims, and very few show decorations. They may all be classified as one type. In color they are gray, red, brown, and buff; and two or more of these colors are often present in the same sherd. The tempering material is invariably grit, fine to coarse in size. Decoration is usually lacking, but where present consists of cord markings or incised lines. It crumbles readily, even when dry. The tempering material has often weathered out, giving a porous appearance to the sherd. Secondary features, such as handles, are never found. Possibly the scarcity of sherds is due to the fact that the type of pottery made in the county disintegrates so readily when exposed to weather.

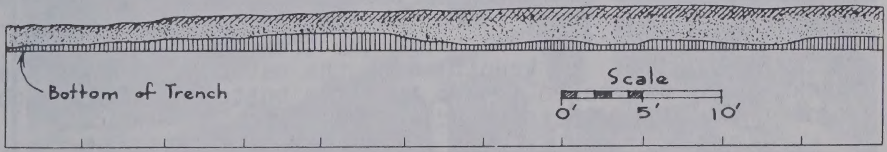
Other cultural material. Other artifacts found on the surface include grooved granite axes, hematite, and chert projectile points, knives, scrapers, hoes, drills, and axes. For the most part the workmanship on the chert artifacts is crude, leaving large scars and irregular edges. It is possible that the better specimens have been gathered by amateurs, leaving only the poorer ones; however, the sites that have been excavated reveal beneath the surface exactly the same types which have been found on the surface. Occasionally points are gathered which show superior work - sharp, regular edges, smooth surfaces, and fine, secondary chipping. The points are generally large, between 2 and 3 in. in length, and correspond to the Woodland pattern as found in neighboring states. Knives of 5 to 6 in. in length are common. Attention should be called to the few smaller, thin points, of better workmanship. Our survey has found only one of the small triangular points (Page 6) in the county, although elsewhere in Missouri this type is the commoner. We have, however, noted that amateur collections often contain a few of these, but they are exceedingly rare. The artifacts will be discussed further in connection with sites excavated.

THE PLAN of VILLAGE SITE Bo3


170 165 160 155 150 145 140 135 130 125 120 115 110 105 100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 -5 -10
Extent of Site
Excavated Area
R3
R2
R1
L1
L2
L3
SCALE of FEET
0 5 10 25
N


LEGEND
Clay or subsoil
Topsoil
Plowed zone
Scale
5'
Bottom of Trench

Section from 0R2 to 15R2


Bottom of Trench
Scale
0'
5'
10'

Section from 70R2 to 125R2

The Excavation of Village Site Bo3

This village site, which was trenched in the fall of 1935, is twelve miles north of Columbia, about one-half mile west of Highway 63. It lies, to be precise, in the SW¼ of the NW¼ of Sec. 13, Township 50N, Range 13W. The site is in bottom land on the south side of the Silver Fork Creek, but is situated almost entirely upon an isolated hill made by the creek. In fact, residents in the vicinity believed the hill to be an Indian mound. The creek forms the northern and eastern borders of the site, and to the south, at a distance of 150 feet, lies the old bed of the Silver Fork. To the west, for some distance there is a long stretch of low, flat bottom land, which was planted in corn at the time of our excavation. About three hundred feet west of the site the Grindstone enters the Silver Fork from the north.

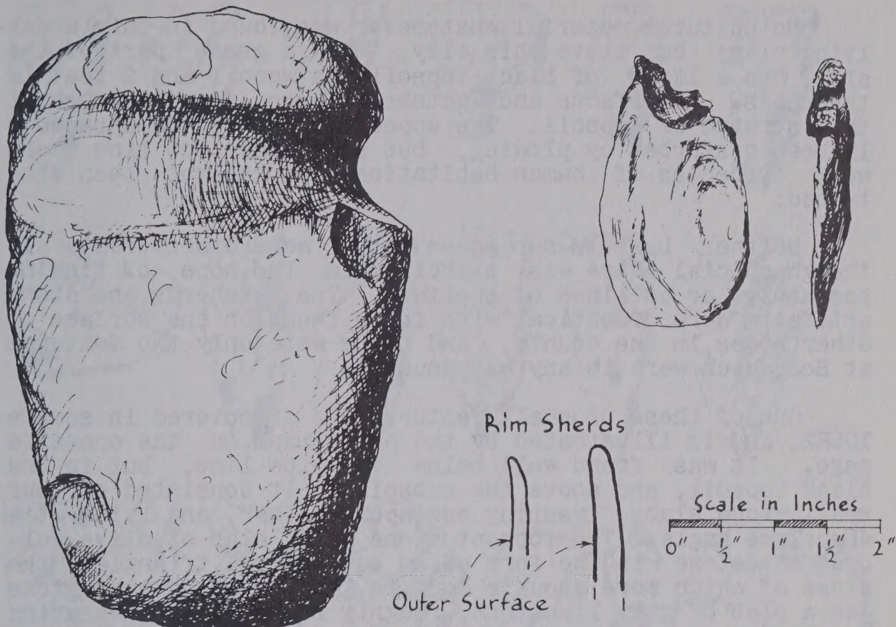
Surface material, in the form of chert chips, potsherds and a few broken chert artifacts, was fairly abundant on the site. Many other sites, moreover, are not far distant. Just across the creek was found another village site, and upon a high ridge about a mile to the southeast seven low mounds were discovered.

The site had never been disturbed, except by cultivation. However, local collectors of artifacts had gathered many pieces from the site, and it was generally known as a rich hunting ground. The hill had been under cultivation in the past, but at the time of our exploration was covered by weeds.

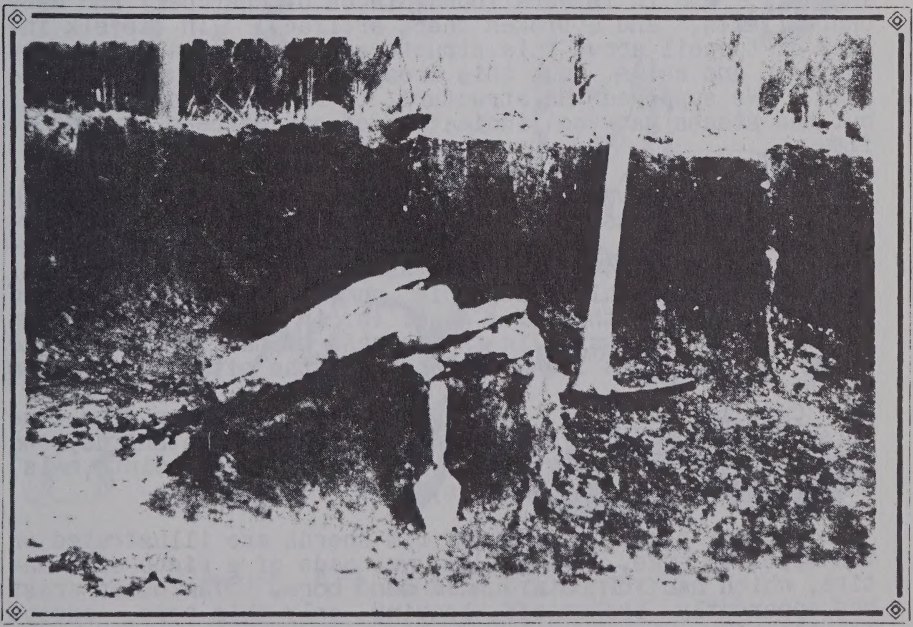
The extent of the village, judging by the presence of material on the surface, was about 170 feet from north to south, and a little more than 100 feet from east to west. The hill, upon which it stood, rose to a height of about eight feet above the surrounding flats.

The site was first cleared of vegetation, a north-south axis was selected, and a datum plane was established. A portion of the area was then staked out in five-foot squares. A five-foot trench was begun at the approximate edge of the site, and was taken well below the topsoil into the underlying clay, or subsoil. Although the trench was stepped up, from time to time, in keeping with the natural rise of the ground, care was taken to see that the bottom of the trench remained in the definitely undisturbed soil.

Beginning at the 0 line, the trench was carried north to the 50 ft. line, where, because the site seemed richer to the right, it was shifted five feet to the east. This five-foot trench was extended across the village to the 155-ft. line, although at the very top of the hill it was widened to ten feet. Test pits were sunk at various places over the site, but none of them gave any encouragement to further excavation. No evidence of house remains could be found, and for the amount of labor expended, the cultural material uncovered was disappointing. When winter set in further excavation became impossible, and the trench was filled in.


Rim Sherds
Outer Surface
Scale in Inches
0"
½"
1"
1½"
2"

Miscellaneous Artifacts from Bo3



Hearth from Village Site Bo3

No cultural material whatsoever was found in this underlying clay; but above this clay, over a great part of the site, was a layer of black topsoil between 1 and 2 feet in thickness. Artifacts and potsherds were found throughout this stratum of topsoil. The upper six inches had apparently been disturbed by plowing, but below the plow line there were evidences of human habitation that had not been disturbed.

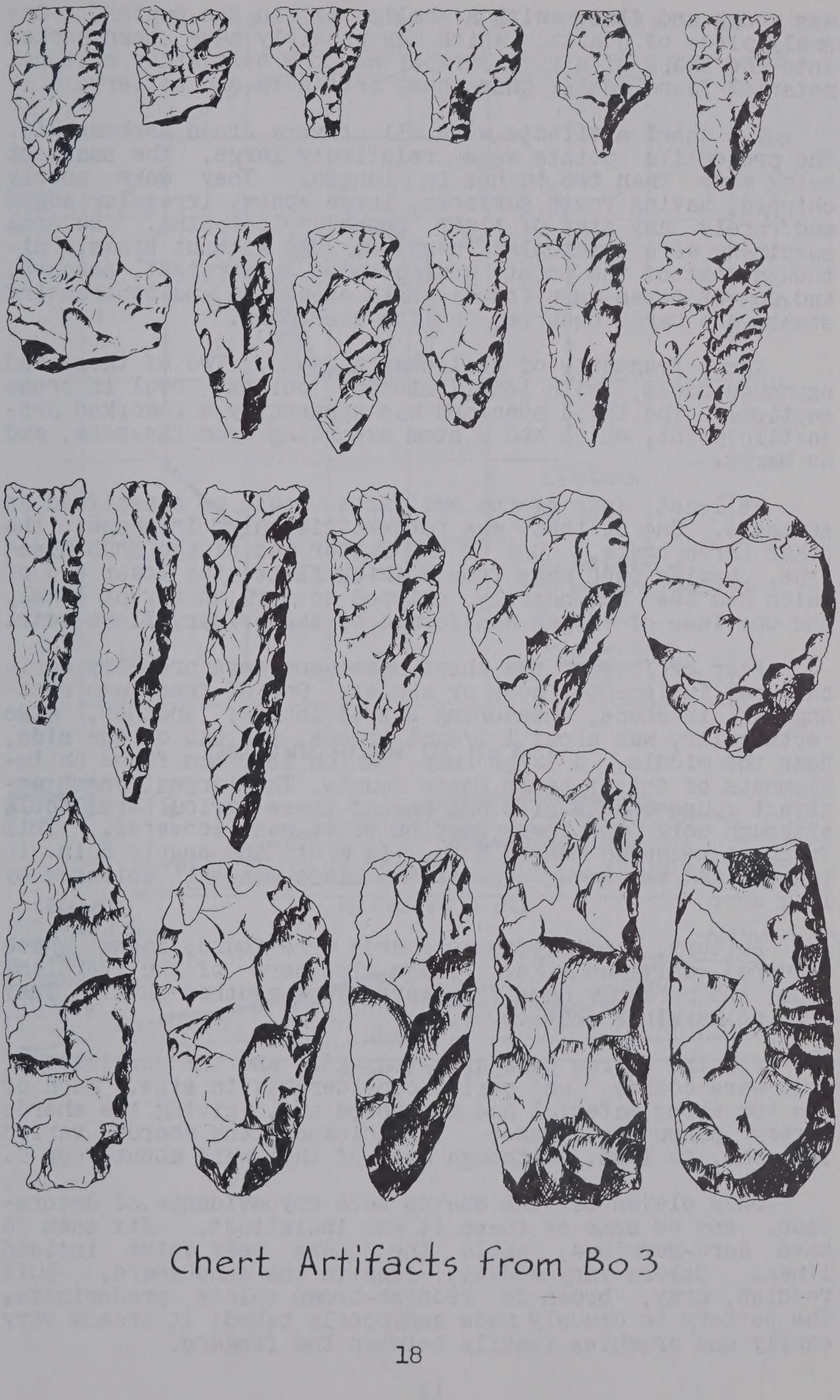
Neither burials nor house sites were discovered, although special care was exercised in the hope of finding post holes or outlines of shelters. The potsherds and stone artifacts were identical with those found on the surface of other sites in the county, and there were only two features at Bo3 which were in any way unusual.

One of these unusual features was discovered in square 105R2, and is illustrated by the photograph on the opposite page. It was found well below the plow line, but in the black topsoil, and above the subsoil. It consisted of four small stone slabs, resting one upon another, and lying at a 45 degree angle. The topmost stone was a slab of olive-colored sandstone in the form of an equilateral triangle, the sides of which were about a foot in length. The next stone was a slab of gray limestone, roughly rectangular, measuring 9 x 14 inches. Beneath this was a smaller piece of limestone, resting, in turn, upon still another piece of irregular shape. Nothing was found between these stones, but beneath them the soil was of blacker color than the surrounding soil, and in it were found pieces of charcoal and many chert flakes, and a broken chert artifact. In the six inches of topsoil above this structure we found charcoal, potsherds, and chips, but this area had been disturbed by the plow. We supposed the structure to be a part of a hearth, but the stones gave no indication of having been exposed to fire.

The other unusual feature occurred in square 110R1, and consisted of a mass of chert flakes and cores, one projectile point, a chert knife, and a few potsherds. It was obviously a refuse heap, and it measured 1 ft. x 2 ft. x 14in. The flakes, several hundred in number, were of pink and white chert, very thin, 1 - 4 sq. in. in size, and had been detached by percussion in the process of manufacturing the types of implements found elsewhere in the site.

Cultural material. Cultural material taken from the site consisted of one grooved ax, a pendant, potsherds, one grinding stone, and numbers of chert projectile points,awls, knives, scrapers, hoes, spades, etc.

The ax, pendant, and two rim sherds are illustrated on the opposite page. The pendant was made of a piece of hematite, which had formed around a sand core. The outer crust had apparently broken off, leaving only this core, except for the rim surrounding the hole. The grinding stone was disk-shaped, 5 in. in diameter, 1½ in. in thickness. One surface was worn smooth, and was slightly convex; the other



Chert Artifacts from Bo 3

was rough and flat, with a shallow pit in the center. One small piece of quartz, which may possibly have been worked into the shape of a rude scraper was the only other cultural material found, other than chert artifacts and pottery.

The chert artifacts were all of very crude workmanship. The projectile points were relatively large, the smallest being more than two inches in length. They were poorly chipped, having rough surfaces, large scars, irregular edges and rarely any sign of finer secondary chipping. Several specimens were triangular in shape, and without stems, although most of the points were stemmed. Straight, concave, and convex bases were found; both expanding and contracting stems; and barbs occurred on five specimens.

Three fragments of drills were found. Two of these had expanded bases, with long, slender points, oval in cross section. The third specimen was apparently a reworked projectile point, which had a stem expanding from the base, and no barbs.

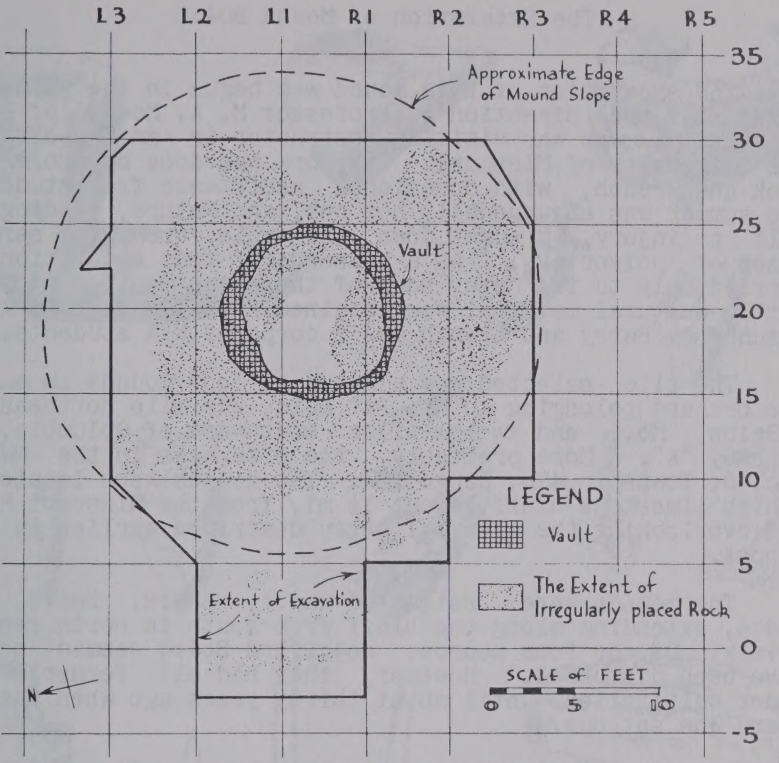
At least four of the artifacts could be classified as scrapers. One of these was rather triangular in shape; the other three ovate. One of the latter was of the snub-nosed type, having been made from a thick flake, the lower end of which had been secondarily chipped to form an abrupt bevel, and one face of which was formed by the primary flake scar.

Four or five of the chert specimens were probably agricultural implements, hoes or spades. One of these was rectangular in shape, measuring 2 x 4½ inches; another, also rectangular, was about 1 3/4x5½ inches, and had on one side, near the middle, a large hump, which is often found on implements of this type in Boone County. The largest chert artifact found on the site was one of these agricultural tools although only the lower portion of it was recovered. This fragment measured nearly 3 in. in width and nearly 5 in. in length, and the lower edge of the blade was well polished by long use.

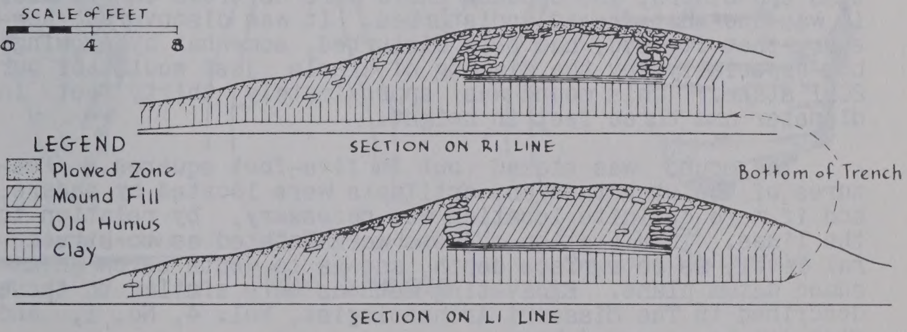
Pottery. About fifty potsherds were found, among which occurred only two rims. These rims were of the vertical type, and probably came from very large-mouthed pots. They bore no markings whatsoever.

All the sherds were grit-tempered, and the particles of grit were coarse, and varied considerably in size. Much of the tempering material had weathered out, giving the sherds a very porous appearance. In thickness the sherds varied from 4mm. to 12mm., although most of them were about 7 or 8.

Only eleven of the sherds bore any evidence of decoration, and on some of these it was indistinct. Six seem to have cord-markings, while the others bear faint incised lines. Colors vary widely, even in the same sherd. Buff, reddish, gray, brown to reddish-brown colors predominate. The pottery is crudely made and poorly baked; it breads very easily and crumbles readily between the fingers.


L3
L2
L1
R1
R2
R3
R4
R5
35
30
25
20
15
10
5
0
-5
Approximate Edge of Mound Slope
Vault
LEGEND
Vault
The Extent of Irregularly placed Rock
Extent of Excavation
SCALE of FEET
0
5
10
N

GROUND PLAN OF Bo 4:2


SCALE of FEET
0
4
8
LEGEND
Plowed Zone
Mound Fill
Old Humus
Clay
SECTION ON R1 LINE
Bottom of Trench

SECTION ON L1 LINE

The Excavation of Mound BO4:2

The excavation of this mound was begun in the summer of 1936 under the direction of Professor M. A. Mook, of Brown University, who was visiting instructor in anthropology at the University of Missouri. The work was done by Professors Mook and Wrench, with occasional assistance from students. The summer was an unusually hot one, and Nature, adding insult to injury, brought down the whole crew with serious cases of poison ivy. As a consequence the excavation was carried only to the outer edge of the stone vault, and very little cultural material was obtained. In the fall work was resumed by Berry and Wrench and a corps of NYA students.

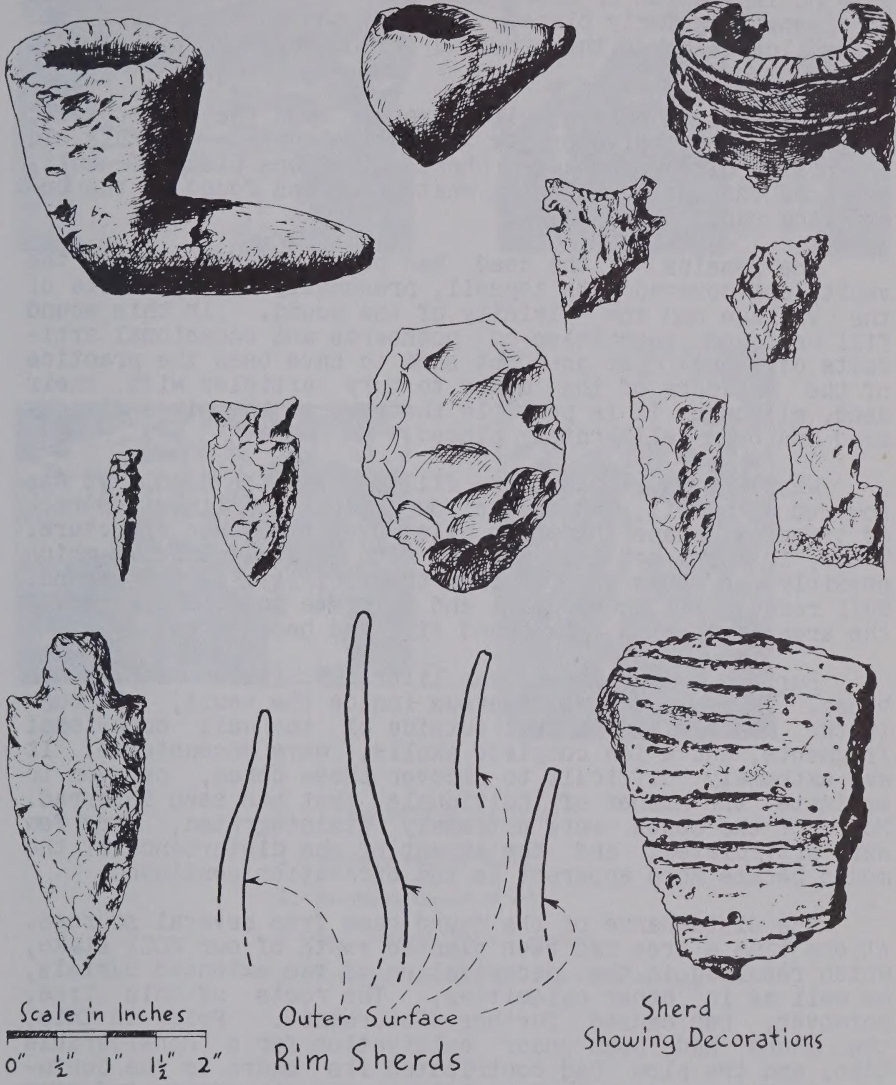
The site selected was a group of four mounds in an apple orchard belonging to Mr. Pat Bain, one mile northeast of McBaine, Mo., and twelve miles southwest of Columbia, on Highway "K". More precisely, the site was in the NW¼ of Sec. 6, Township 47N, Range 13W. The mounds were located on a high limestone bluff, about 1½ mi. from the Missouri River and overlooking the alluvial strip described earlier in this report.

The mounds were designated Bo4:1, Bo4:2, Bo4:3, and Bo4:4, extending along the bluff from south to north respectively. Of the four mounds, Bo4:2 and Bo4:4 seemed not to have been disturbed. However, they had all formerly been under cultivation, until about thirty years ago when the orchard was set out.

Bo4:2 was chosen for excavation because it was smaller than the others, and because there were no trees on it. Also it was one that seemed undisturbed. It was discovered, however, that it, too, had been disturbed, somewhat by plowing, but especially by the digging of a hole just south of our 20L1 stake. This mound was approximately thirty feet in diameter and three feet in height.

The mound was staked out in five-foot squares. Features of the structure and artifacts were located by square, and if more definite location was necessary, by relation to the lines. In elevation objects were located as to structural level, as to surface depth, and as to depth below an assumed datum plane. Excavating methods were similar to those described in The Missouri Archaeologist, Vol. 4, No. 1, and need not be repeated here.

Structure of the mound. The mound had been constructed by placing flat slabs of limestone directly on the original ground. These had been placed so as to form a roughly circular enclosure about two feet in height and between ten and twelve feet in diameter, measuring from the outer circumference of the so-called vault. The limestone slabs used for this central rock structure were of various shapes and sizes. One of the largest measured 6 in. x 3 ft. x 1½ ft. Another measured 3½ ft. x 1 ft. x 4 in. These slabs had apparently been broken from the outcrop on natural cleavage planes, and


Scale in Inches
0" ½" 1" 1½" 2"
Outer Surface
Rim Sherds
Sherd
Showing Decorations

Cultural Material
From Mound Bo 4:2

gave no indication of subsequent shaping. An occasional one had been irregularly placed, but for the most part they had been piled one upon the other to form a wall about two feet in height.

This wall had been built directly upon the old topsoil, which was about five or six inches in depth. In this old topsoil we discovered a few chert chips, one piece of skull, and some charcoal. Nothing whatsoever was found in the underlying subsoil.

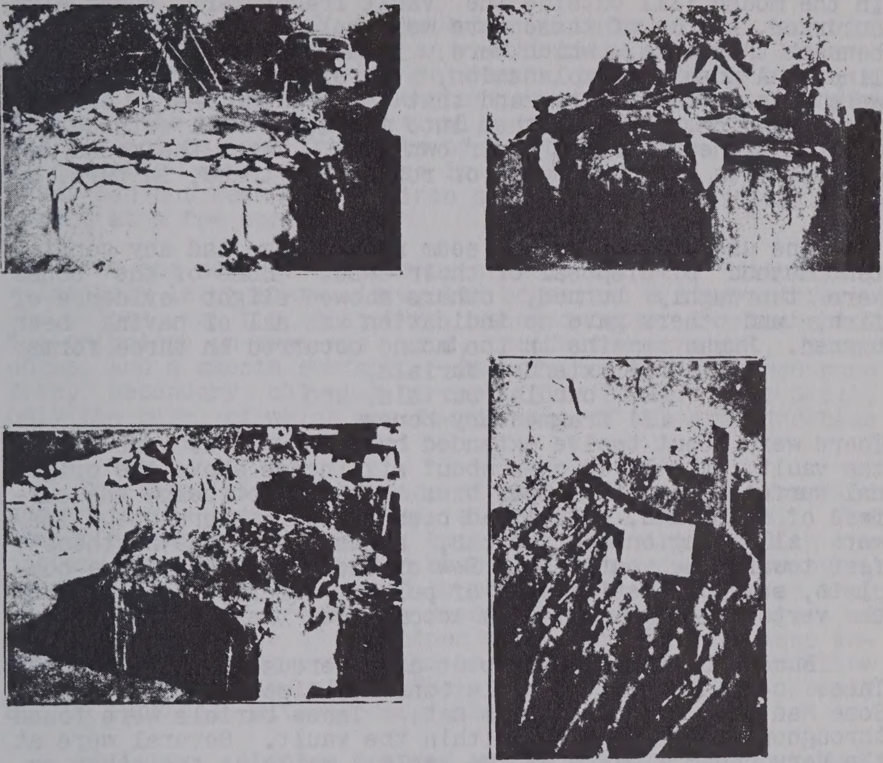
The remains of the dead had been placed within the vault, and covered with topsoil, presumably from the site of the village and the vicinity of the mound. In this mound fill we found quantities of potsherds and occasional artifacts of stone. It does not seem to have been the practice of the builders of the mound to bury articles with their dead, although it is possible that two of the pipes discovered had been deliberately placed.

When the vault had been filled with the dead, it was covered with soil, and then a rough "dome" of limestone rock of irregular shape had been piled over the whole structure. These, in turn, had been covered with additional soil, which possibly had been scooped from the vicinity of the mound. Soil readings in squares 5R1 and 5L1 gave some indication of the area from which this mound fill had been taken.

Burials. The mound was literally filled with human bones. These were most numerous inside the vault, although in the mound fill on the outside of the wall occasional fragments, and a few complete skulls, were encountered. It was extremely difficult to uncover these bones, or even to estimate the number of individuals that had been interred. Most of the bones were extremely disintegrated, very few were articulated, and the extent of the disturbance of the mound became more apparent as the excavation continued.

The disturbance of the mound came from several sources. At one time a tree had been planted south of our 20L1 stake, which resulted in the decapitation of two extended burials, as well as in other calamities. The roots of this tree, moreover, had caused further disturbance. Prior to this, the mound had been under cultivation for a considerable time, and the plow had contributed its share to the confusion. Furthermore, rodent holes were abundant, and many bones gave positive evidence of having been gnawed upon.

In the opinion of the excavators, moreover, not a little of the disturbance could be traced to the users of the mound themselves. The distribution of the human remains leads to such a conclusion. Extended, undisturbed burials were found at datum depths from 4 to 5 feet, which would place the upper ones about six inches below the plow line, and the lower ones about six inches above the original humus line. In the same stratum there occurred bundle burials and fragmentary bones. Beneath these extended burials were found isolated, fragmentary bones - a tibia, a femur, etc.



Excavation of Bo4:2

1 - Southern wall of vault

2 - Southeast corner of wall

3 - Wall removed; burials exposed.

4 - Extended burials; upper portions missing

In the mound fill outside the vault fragmentary bones also occurred. Some of these were well below the plow line, and beneath the rocks, which were, themselves, below the plow line. A possible explanation, therefore, is that burials were made in the vault, and that subsequent users exhumed these remains, throwing them into the mound fill outside the wall, and then interred their own dead. Later the mound was covered with a crude "dome" of rocks, and these, in turn, by soil.

The users of the mound seem not to have had any consistent method of disposal of their dead. Some of the bones were thoroughly burned, others showed slight evidence of fire, and others gave no indication at all of having been burned. Human remains in the mound occurred in three forms:

(1) extended burials,
(2) "bundle" burials, and
(3) fragmentary bones.

There were about twelve extended burials. These were all in the vault, the lower ones about six inches above the original surface, and the upper ones about a foot below the surface of the mound. Some had been burned, others not. They were all lying on their backs, heads toward the northeast, feet toward the southwest. Few of these skeletons were complete, some consisting only of pelvis, femora, and a few of the vertebrae. No artifacts accompanied these burials.

Bundle burials were about as numerous as the extended. These consisted of accumulations of miscellaneous bones. Some had been burned, others not. These burials were found throughout the mound, but within the vault. Several were at the very upper levels of the vault, while at the other extreme one was found upon the old humus line. Typical of such burials was one found in square 20R1, consisting of a mass of unarticulated bones, among which we recognized fragments of pelvis, skull, clavicle, fingers, and long bones of arms and legs. Again, in the same square, we uncovered a mass of unburned bones consisting of fragments of six long bones.

Isolated, fragmentary human bones occurred throughout the mound, both within and without the vault. Some had been burned, others not. Many of these fragments were found within the disturbed plowed zone, but oftener they were encountered well below the plow line. Several were found at the very bottom of the mound, within the vault, lying on the original surface. In fact, a small piece of skull was found beneath one of the slabs which made up the vault wall, in the old topsoil. In several places single skulls, or several skulls, were uncovered. In square 15L1, just inside the vault, we uncovered three crushed skulls, and north of this spot, beyond the vault wall, we found two more skulls, one of which had been burned.

Approximately thirty individuals had been buried in the mound, although this number is hardly more than a guess. The large number of individuals suggests that the mound was used as a burial place over a long period of time.

Cultural material. The cultural material was found in the mound fill, both within and without the vault. It consisted of approximately 100 potsherds, two complete pipes, a portion of a third pipe, one chert scraper, three projectile points, the base of a chert awl, pieces of four other projectile points, and fragments of two bone awls. Two pieces of hematite were found also in the mound fill, and while these had not been worked into shape they had possibly been ground at a few corners.

The one scraper was rather crudely chipped, displaying relatively large scars, irregular edges,and a rough surface. The points, on the other hand, showed better workmanship. The chipping on them was good, producing straight, sharp edges, and a smooth surface. One of the points showed some fine, secondary chipping on one of the edges. The drill, only the base of which was found, was of the expanded base type, oval in cross section.

The three pipes were made of baked clay, and resembled somewhat the potsherds found elsewhere in the mound. The tempering material was grit, but finer than that used in the pottery, and relatively less abundant. The pipes, moreover, seem to have been subjected to more expert firing, as they do not break and crumble as readily between the fingers as do the sherds. One of the pipes was decorated with deep incised lines running around the body of the bowl, and shallow lines on top of the rim. The other two pipes had fairly smooth surfaces, without decoration.

Pottery. About a hundred sherds were recovered. Most of these were less than a square inch in size, although a good number of larger pieces was found. The similarities in these sherds were sufficient to justify their inclusion in one type. They were all grit-tempered, the tempering material being sand. The six rim sherds were of the vertical type and suggested vessels with circular mouths between 13 and 14 cms. in diameter. The only decoration consisted of deep incised parallel lines, but such decoration occurred only on three or four sherds; and the pots seem to have been somewhat smoothed over after the lines had been made, almost obliterating them in places. There was no evidence of handles or other secondary features. The sherds are of poor grade, being soft, and crumbling easily between the fingers.

In other respects these sherds displayed some differences. In thickness they varied from 4 mm. to 10 mm., most of them being 6 or 7 mm. In the thick sherds the tempering material was usually coarse sand, the grains greatly varying in size, and being rather abundant in the paste. However, one of the thinnest sherds was tempered the same way. Finer sand was used for tempering some of the specimens, and in some the sand was relatively less abundant than in others. There was considerable variation in color, some being reddish-brown, others buff, and others dull gray. The color often varied in the same sherd, the inner surface being gray and the outer surface reddish-brown or buff. The cultural material, however, suggests only one culture in the mound.

The Excavation of Mound Bo5

This mound was in a woodland about sixty yards west of an apple orchard, on property belonging to Mr. Pat Bain. It was situated on a high bluff overlooking Perche Creek and the bottom lands of the Missouri River, one mile southeast of McBaine, Mo. More precisely, it was in the NW¼ of the SW¼ of Sec. 6, Township 47N, Range 13W. A deep, narrow valley, through which County Highway "K" runs, separates the bluff on which Bo5 lay from that on which Bo4:2 lay.

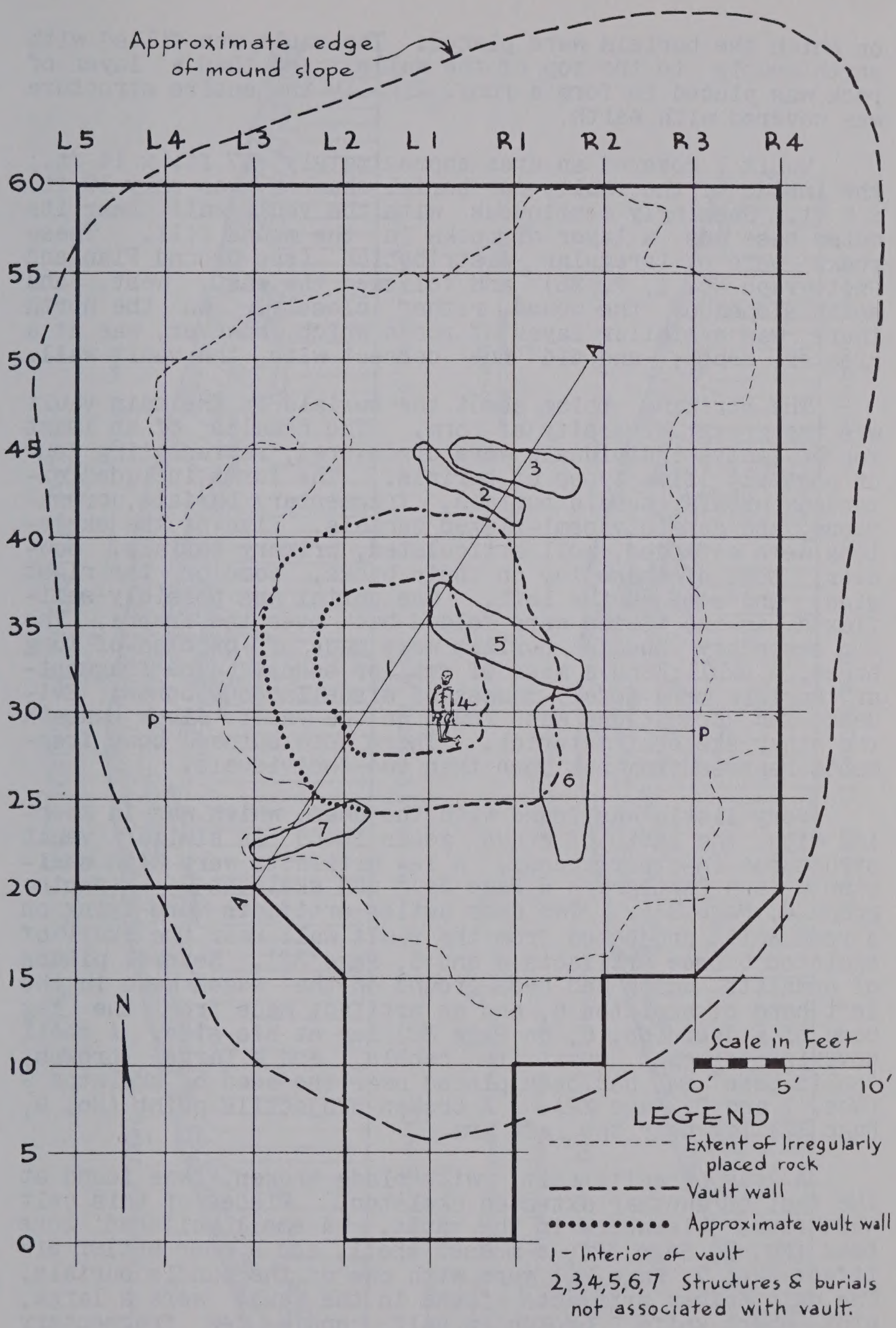
Bo5 was the largest mound thus far excavated by the University. Its dimensions were approximately 60 ft. in length, 45 ft. in width, and 10 ft. in height. In outline it was ovate, the north end being broader than the south, and the long axis running from north to south. There was no evidence of disturbance before the excavation began, but it was later discovered that a small pit had been dug on one side. Many small trees, some of which were three or four inches in diameter, were growing on the mound.

The mound was first cleared of trees and brush. It was then staked out in five-foot squares. The methods of excavating and recording data were the same as those employed on other sites, and need not be repeated here. The excavation was begun at the southern edge of the mound slope. A trench ten feet wide was taken north until rocks were discovered in the mound fill. Then the trench was extended entirely around the mound. The remainder of the excavation work consisted in following and uncovering the rock structures in the mound.

Construction of the mound. Vault 1. The structure of the mound was complicated with a number of burials and stone structures in addition to a large stone vault similar to the ones found at Bo1 and Bo4. The large vault (Vault 1) was near the surface. It overlaid several of the other features which were at various depths beneath it.

Vault 1 was composed of stone walls forming a roughly square enclosure; a pavement of stones at the base of the wall, forming a floor; and another layer of stones, more or less even with the top of the wall, forming a roof. A layer of rocks in contact with the outer edge of the wall and leading away from it also appeared to be part of the structure. The limestone rock slabs used in the construction were surface stones obtained probably from an outcrop on the hillside nearby. There was no evidence that they had been shaped before being used.

The walls of the vault on the north, east, and south sides were made up of five or six layers of rock slabs, and were about two feet in height and from three to three and a half feet in thickness. The greatest thickness was at the corners, and served to brace the walls. The west wall, which had been disturbed by the above-mentioned pit, was only a ft. in height, and two feet in thickness. A pavement of stones, laid even with the inner base of the walls, formed the floor


Approximate edge of mound slope
L5
L4
L3
L2
L1
R1
R2
R3
R4
60
55
50
45
40
35
30
25
20
15
10
5
0
A
A
P
P
1
2
3
4
5
6
7
N
Scale in Feet
0'
5'
10'
LEGEND
Extent of Irregularly placed rock
Vault wall
Approximate vault wall
1 - Interior of vault
2,3,4,5,6,7 Structures & burials not associated with vault.

Ground Plan of Mound Bo5

on which the burials were placed. The vault was filled with earth nearly to the top of the walls, and then a layer of rock was placed to form a roof. Finally the entire structure was covered with earth.

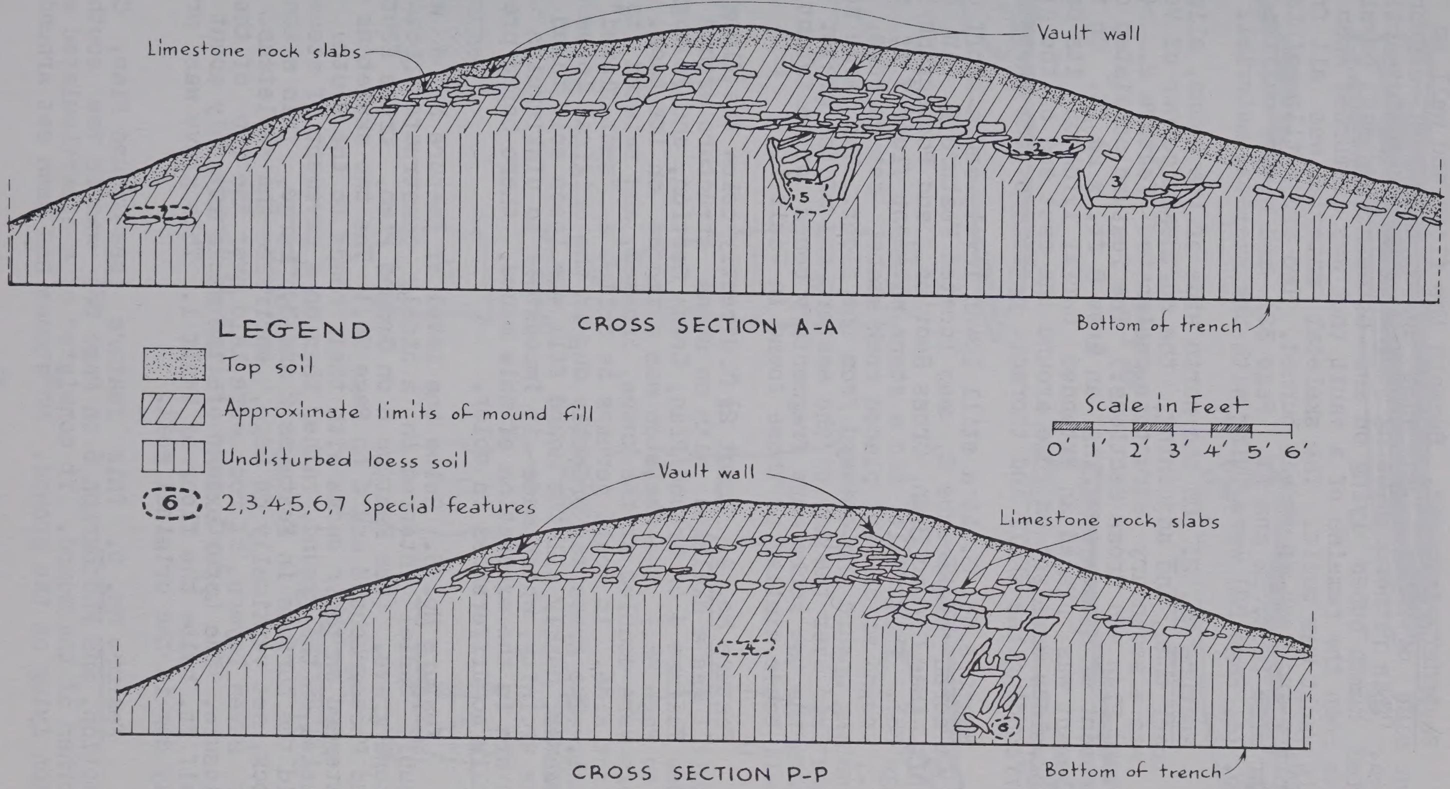
Vault 1 covered an area approximately 17 ft. x 14 ft.; the inside of the vault, or burial chamber, was only 10 ft. x 8 ft. Seemingly continuous with the vault wall near its outer base was a layer of rocks in the mound fill. These rocks were of irregular distribution (see Ground Plan and Photograph No. 1, P. 35) and followed the east, west, and south slopes of the mound rather closely. On the north there was a similar layer of rocks which, however, was at a greater depth, and did not connect with the vault wall.

The striking thing about the burials in the main vault was the great diversity of form. The remains of at least ten or twelve individuals were discovered, representing four or possibly five types of burials. The forms included extended burials, bundle burials, fragmentary burials, cremations, and possibly semi-flexed burials. Five of the skeletons were extended, well articulated, primary burials. However, some of these lay on their backs, some on the right side, and some on the left. One burial was possibly semi-flexed, as the tibiae were folded back over the femora. The two secondary bundle burials were made of bundles of long bones, a skull, and a mass of smaller bones. The fragmentary burials were merely masses of miscellaneous bones. Evidence for cremations was found on the vault floor beneath the other skeletal material. There were burned bone fragments representing not more than two individuals.

Very little was found with the dead, which was in keeping with the lack of grave goods found in similar vault structures in other mounds. A few artifacts were with skeleton 6 (see Photograph 5 Page 34) and skeleton 9 (Photograph 4, Page 34). Two deer antler artifacts were lying on a rock which projected from the vault wall near the skull of skeleton 6 (see artifacts 4 and 5, Page 32). Several pieces of hematite which had been ground on the edges were in the left hand of skeleton 6, and an artifact made from the leg bone of a deer (No. 6, on Page 32) lay at his side. A shell covering a round quartzite pebble, and a large, broken, "split-bone" awl had been placed near the head of skeleton 9 (Nos. 1 and 2, Page 32). A broken projectile point (No. 9, Page 32) lay near the left arm.

A gray granite celt, with blade broken, was found at the feet of another extended skeleton. Pieces of this celt were found elsewhere in the vault. A small polished bone bead (No. 3, Page 32), a mussel shell, and a deer antler artifact (No. 7, Page 32) were with one of the bundle burials. The only other artifacts found in the vault were a large, pink chert knife, broken in half, and a few fragmentary shell beads, made from very small sea shells. The latter material could not be associated with any one burial.

CROSS SECTIONS of MOUND BO:5


Limestone rock slabs
Vault wall
5
2
3
CROSS SECTION A-A
Bottom of trench
LEGEND
Top soil
Approximate limits of mound fill
Undisturbed loess soil
6
2,3,4,5,6,7 Special features
Scale in Feet
0' 1' 2' 3' 4' 5' 6'
Vault wall
Limestone rock slabs
4
6
CROSS SECTION P-P
Bottom of trench

Secondary features. Beneath the floor and wall on the east side of Vault 1 was what appeared to be a disturbed area. This rather confusing jumble of rocks with disarticulated human bones lying on and between them may possibly have been the remains of a vault that was disturbed when the main vault was built. The skeletal material was all fragmentary and much of it was burned. Two projectile points of fair size (Nos. 12 and 13, Page 32) and a very small point (No. 14, Page 32) were lying with the skeletal material.

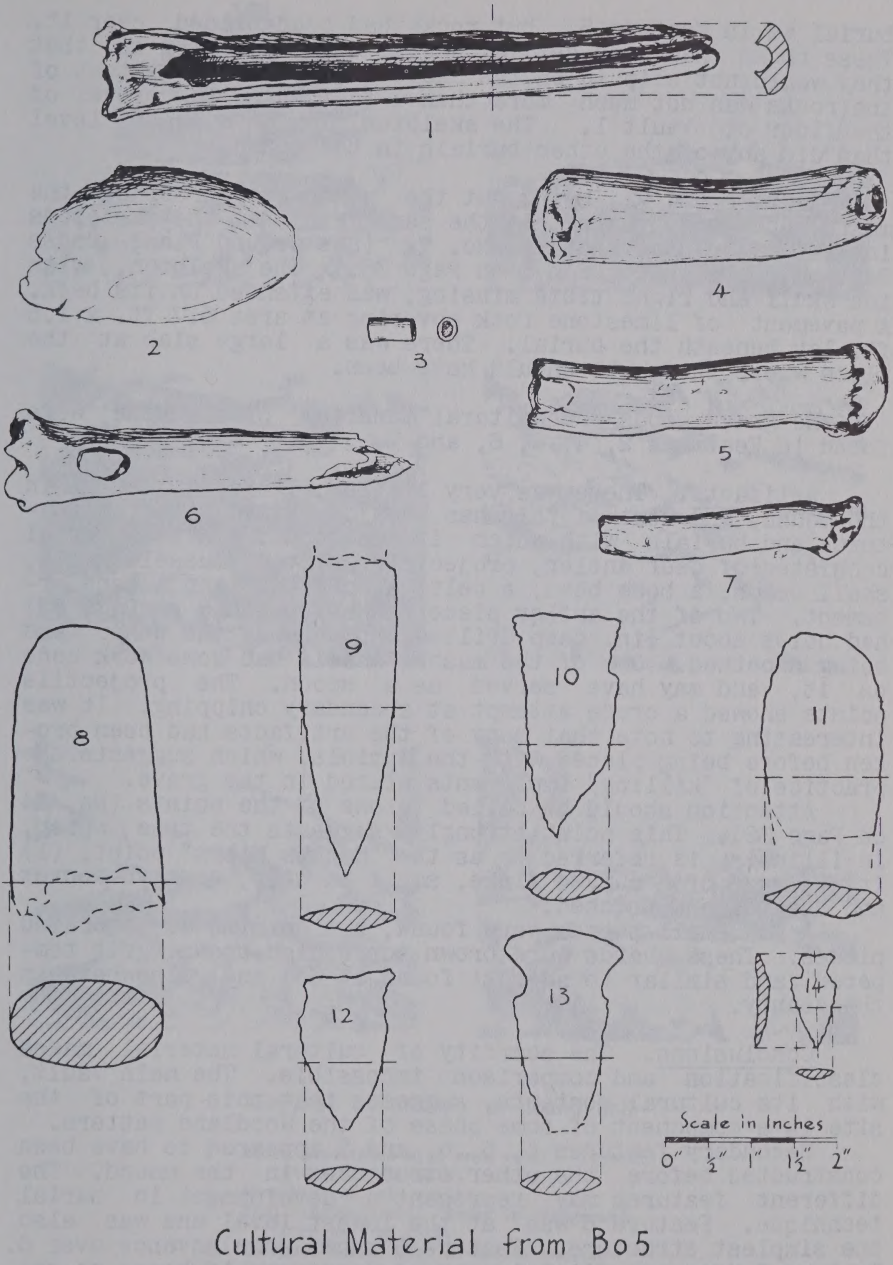
Feature No. 2. On the north side of the mound, slightly lower than, and adjoining, the northeast corner of Vault 1, was a secondary structure designated Feature 2. (See Ground Plan and Cross Sections.) The feature consisted of a pavement of stones covering an area 8 ft. x 2½ ft. On this pavement was placed an extended burial lying on its back. Rock slabs were set on edge around the east end of the grave surrounding the skull and thoracic regions of the skeleton.

Feature No. 3. At a still lower level, and a short distance north of Feature 2, was located Feature 3, an oval vault. (See Ground Plan, Cross Section, and Photograph 1 on Page 35). This vault had a stone pavement floor 7 ft. x 2½ ft., around which were placed rock slabs, set on edge, and slanting upward and outward from the floor. Two large rocks were laid over the top of the eastern end of the grave. Beneath the two rocks were fragmentary bones of an infant and shell beads similar to those found in Vault 1.

Feature No. 4. About 2½ ft. directly below the floor of Vault 1 was a skeleton with no stone structure around it. (See Feature 4 on Ground Plan, Cross Section, and Photograph 2 on Page 35.) The skeleton was extended on its back. The legs were doubled at the knees, crossed, and twisted to the right side. It could perhaps be called a "semi-flexed" burial. The grave was probably dug in the original loess soil. However, nearly all the mound fill was loess soil taken from the vicinity, which made it impossible to distinguish soil levels in the excavation of this mound, there being practically no differences in color.

Feature No. 5. Below the level of Feature No. 4 was a double burial interred in a nicely constructed box-like stone grave. (See Feature 5 on Ground Plan, Cross Section, and Photographs 3 and 4 on Page 35.) The two skeletons were extended on their backs with their heads to the south. They rested on the ground, rather than on a pavement of stones as did the burials in Features 2 and 3. Large, thin slabs of rock, set vertically on edge, encircled the skeletons. Six or seven layers of rock were laid over the top of the enclosure. The upper extent of the rocks lay only about one-half ft. below the floor of Vault 1. This grave was probably dug in the original soil.

Feature No. 6. This feature (see Ground Plan, Cross Section, and Photograph 5 on Page 35) was in the southeast corner of the mound. It consisted of a disarticulated skeleton lying on the ground. No stones had been set around the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Scale in Inches
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Cultural Material from Bo5

burial as in Feature 5, but rocks had been placed over it. These rocks had been set at angles to each other so that they would not slip in on the skeleton. The upper extent of the rocks was not much more than a foot below the level of the floor of Vault 1. The skeleton lay at a lower level than did any of the other burials in the mound.

Feature No. 7. Lying at the southwest corner of the mound, and at approximately the same level as the skeletons in Feature 5, was Feature No. 7. (See Ground Plan, Cross Section, and Photograph 6 on Page 35.) The skeleton, with the skull and right tibia missing, was extended on its back. A pavement of limestone rock covering an area 5.7 ft. x 1.5 ft. lay beneath the burial. There was a large slab at the place where the skull should have been.

No grave goods or cultural material of any kind were found in Features 2, 4, 5, 6, and 7.

Artifacts. There was very little cultural material in the mound, and most of this has been described with the features and burials with which it was found. This material consisted of deer antler, projectile points, mussel shells, shell beads, a bone bead, a celt, a bone awl, and a bone ornament. Two of the antler pieces (Nos. 4 and 5 on Page 32) had holes about ¼in. deep drilled in one end, the other end being smoothed. One of the mussel shells had some work done on it, and may have served as a spoon. The projectile points showed a crude attempt at secondary chipping. It was interesting to note that many of the artifacts had been broken before being placed with the burials, which suggests the practice of "killing" implements placed in the grave.

Attention should be called to one of the points (No. 14 on Page 32). This point strongly suggests the type which, in Illinois, is referred to as the "Maples Mills" point. (1) It was made of a curved flake, small in size, concavo-convex and stemmed and notched.

A few small sherds were found, but no rims or decorated pieces. These sherds were brown to reddish-brown, grit tempered, and similar to sherds found at Bo4 and elsewhere in the county.

Conclusions. The scarcity of cultural material makes classification and comparison impossible. The main vault, with its cultural contents, suggests that this part of the site is a component of some phase of the Woodland pattern.

Secondary features 4, 5, 6, and 7 appeared to have been constructed before the other structures in the mound. The different features may represent a development in burial technique. Feature 6 was at the lowest level and was also the simplest structure. Feature 5 shows some advance over 6. Feature 7 does not fit into any sequence, as it bears no resemblance to 5 or 6; but a stone pavement was placed under the burial. Features 2 and 3 seem to combine the good points of 5 and 7. The absence of cultural material from these features makes it difficult to establish a sequence.

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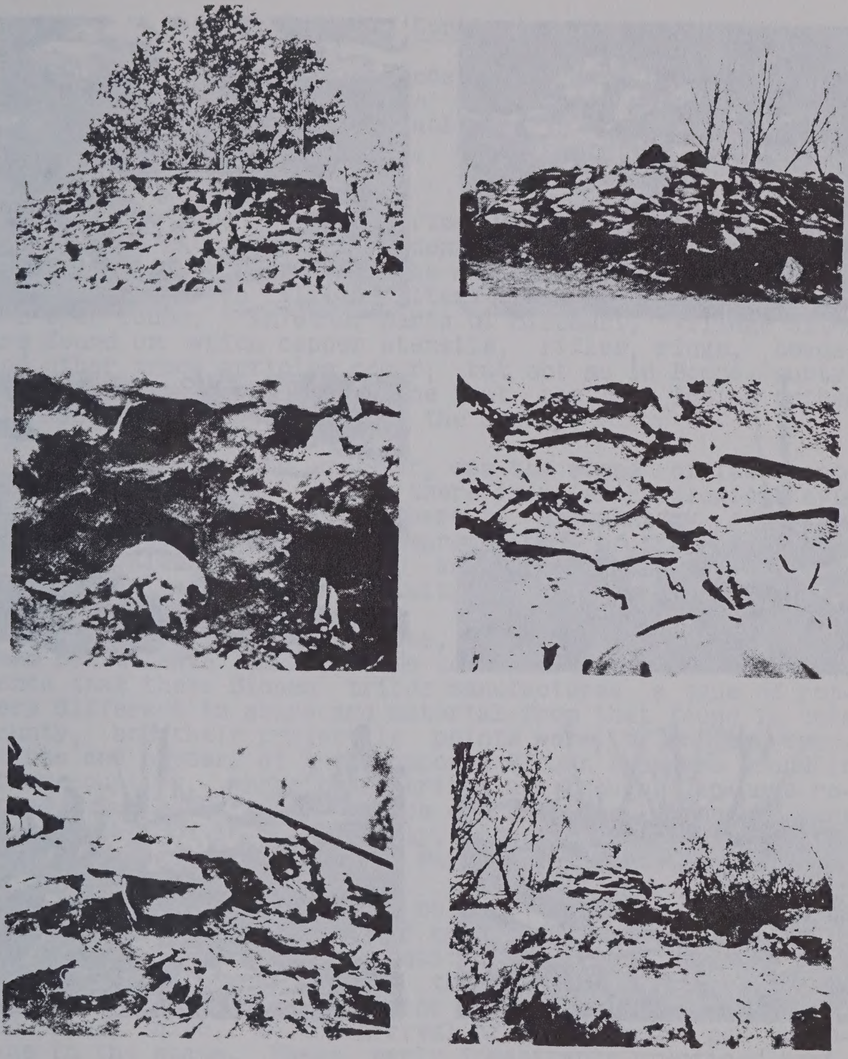
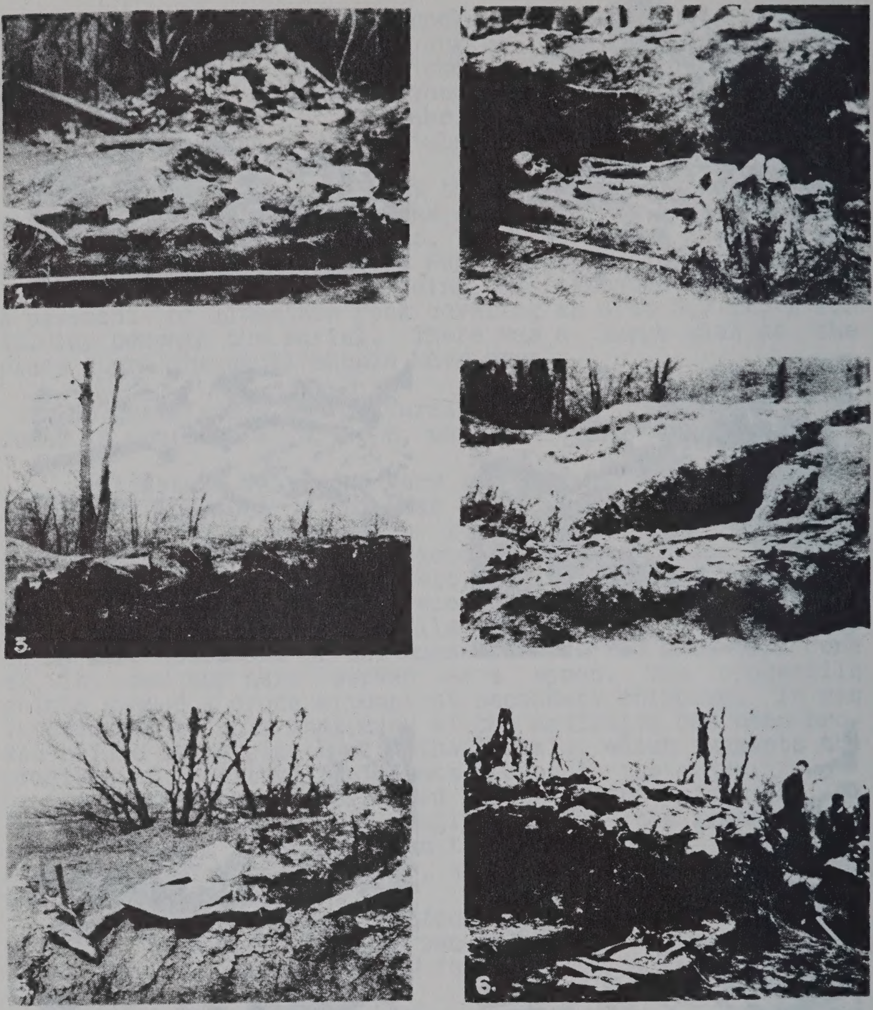
(1) Cole and Deuel, Rediscovering Illinois, Chicago, 1937.



Central Structure in Mound Bo5

1 - Rocks associated with main vault. Topsoil still covers vault.
2 - East side of main vault.
3 - Skull inside vault. Rocks in foreground form part of floor.
4 - Extended burial (No. 9) inside vault.
5 - Extended burial lying on right side. Bundle burial to right, antler artifacts to left on rock.
6 - North wall of main vault; feature 3 to right, feature 5 to left front.



Secondary Features of Bo5

1 - Feature No. 3

2 - Feature No. 4

3 - Vault of Feature No. 5

4 - Burials in Feature No. 5

5 - Feature No. 6

6 - Feature No. 7. Rocks above are part of main vault.

General Conclusions

A great deal of work needs to be done before anything definite can be said about the prehistoric peoples and civilizations that were once established in Boone County. Even at the present time, however, a few tentative conclusions may be drawn.

(1) The late historic tribes did not settle in this county. We have found no evidence that the Indians in this region were in contact with the white traders. No trade material, either on village sites or in amateur collections, has been found. In other parts of Missouri, village sites are found on which copper utensils, rifles, rings, beads, and other trade articles occur; but not so in Boone County. The conclusion would seem to be that the late Indian tribes of Missouri did not settle in the county.

(2) Boone County, however, was the scene of late hunting and war parties. While there is no archaeological evidence for this statement, there is documentary evidence. Early records refer to the depredations of the Potawatomi, Sac, Fox, Kickapoo, and Iowa; and the tradition is that the last Indian raid in this vicinity occurred in 1818.

(3) The late Siouan tribes, the Missouri and the Osage, seem not to have inhabited the county either. There is evidence that these Siouan tribes manufactured a type of pottery different in shape and material from that found in this county, and their projectile points were of another type. Points and pottery of this supposed Siouan type are found in other counties, where these tribes are thought to have resided. But not a single piece of such shell-tempered ware has been found in Boone County, and exceedingly few of the small, triangular points (see Page 6) have come to light.

(4) The dominant type of culture in Boone County fits into the Woodland pattern of neighboring states. It would seem that this county was inhabited for a long time by people possessing some phase of the Woodland culture. These people lived in the county prior to the coming of white men, and prior, also, to the arrival of the Missouri and the Osage in the state. These early inhabitants practiced agriculture, but depended more upon hunting. They lived in small bands, and do not seem to have resided long in one spot. Their tools consisted of chert, granite, hematite, bone, and other materials, which have been adequately described and illustrated elsewhere in this report. They buried their dead in mounds which have also been described.

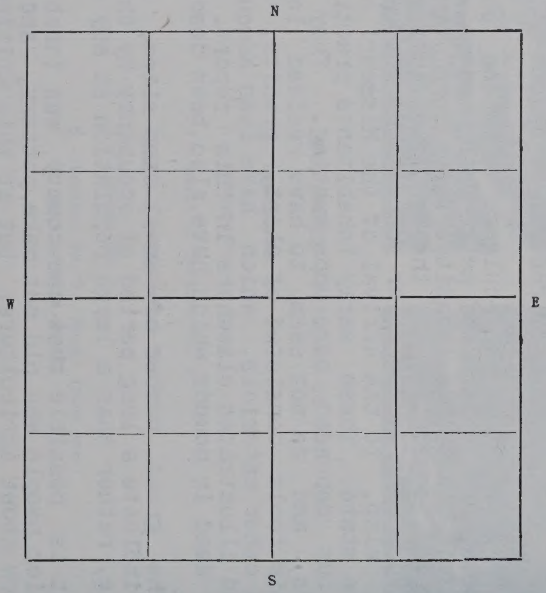
(5) The great number of small camp sites, and their density, indicate a long period of occupancy by these Woodland people, rather than a large population at any one time.

(6) It is possible that the county was inhabited by a still earlier people who did not make pottery, and possibly did not know about agriculture; but at this writing such a culture is hardly more than a conjecture.

Sketch map of location

Section.................Township.........................Range..................

Indicate the chief topographical features, such as streams and elevations.



This diagram may be used for a whole section or for a quarter section.

If it is used for a section, each square will be 1320 feet on a side.
If it is used for a quarter section, each square will be 330 feet on a side.

Note that in many cases the sections are somewhat larger than the normal size, as your local real estate map will show.

ARCHAEOLOGICAL SURVEY OF MISSOURI

..............................County

I. Type of Indian remains (Mound, Village, Burial Ground, etc.)..............................

II. Location:

..............................Section..................Township..............................Range..................

Owner of property..............................

Address of owner..............................

Location of remains on property..............................

Nearest water: Name..............................Distance..................

III. Discription of remains.

IV. Condition of site.

V. If excavated, when and by whom?--Address if possible..............................

VI. If excavated, what was found, and where finds are located at present?

VII. This information supplied by..............................

Address..............................

THE

Missouri Archaeologist

Vol. 5 No. 1 Columbia, Mo., February, 1939

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The Missouri Archaeologist

WE BEGIN OUR FIFTH YEAR

On December 8, 1934, a group of fifteen or twenty people met in Columbia and established the State Archaeological Society of Missouri.

Since 1934 two hundred and sixty people have joined the Society. Many of them have renewed their memberships, so that the total income of the Society has been $398.50.

What the Society has accomplished in the way of providing pleasant and profitable fellowship we have no way of judging; but we offer here a list of the most tangible results of our four years' activity.

(1) The "Old Fort" in Saline County, one of the state's most valuable prehistoric remains has been purchased by the Park Board, and is being added to Van Meter State Park. This is a direct result of the Society's persistent effort in its conservation program.

(2) Eleven numbers of The Missouri Archaeologist have been printed and distributed. These cost, for printing alone, between $30 and $80 per issue, depending upon the size and the number of photographs reproduced. We usually print between 500 and 1000 of each number, and we have mailed them out, not only to members of the Society, but to schools, colleges, universities, and libraries; to thirty or forty archaeological societies and research institutions with whom we exchange publications; and to people whom we hope to induce to join our Society. Bear in mind that it costs 1⅛¢ to 3¢ to mail out each bulletin.

(3) We have sponsored four annual exhibits at the State Fair, which have grown in size and interest, and which are witnessed by many thousands of people.

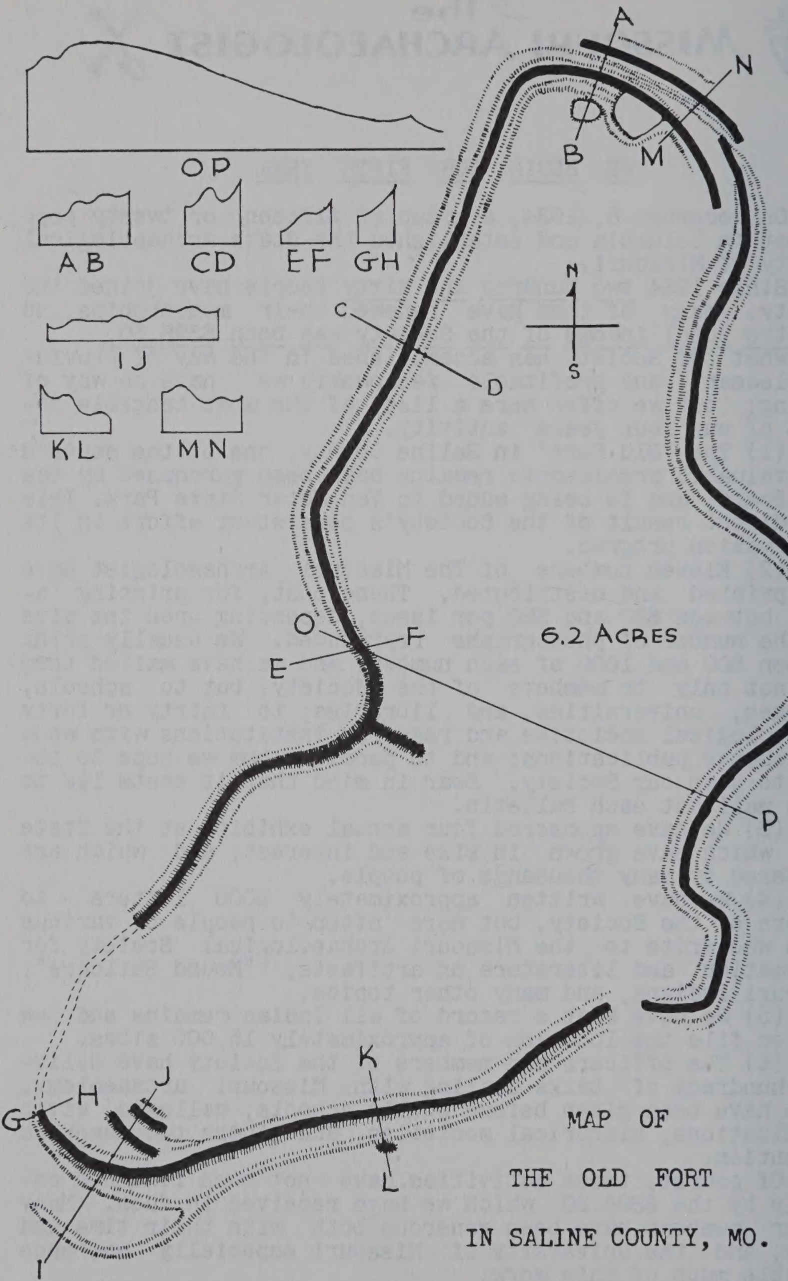
(4) We have written approximately 2000 letters - to members of the Society, but more often to people of various types who write to the Missouri Archaeological Society for information and literature on artifacts, "Mound Builders", Missouri Indians, and many other topics.

(5) We have kept a record of all Indian remains and now have on file the location of approximately 15,000 sites.

(6) The officers and members of the Society have delivered hundreds of talks dealing with Missouri archaeology. These have been given before public schools, colleges, civic organizations, historical societies, and others too numerous to mention.

Of course, these activities have not been financed entirely by the $398.50 which we have received in dues. Many of our members have been generous both with their time and money, and the University of Missouri especially has made possible much of this work.

Nevertheless, we believe that the Missouri Archaeological Society has more than justified its existence, and those who have contributed their dollars have not done so rashly.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MAP OF

THE OLD FORT

IN SALINE COUNTY, MO.

Taken from Bulletin 37 of the Bureau of American Ethnology.

THE "OLD FORT" IN SALINE COUNTY

Brewton Berry

In the northern part of Saline County, on a ridge not far from the Missouri River, there is an interesting earthen enclosure, long known as the "Old Fort". Recently this has been purchased by the State of Missouri. It will soon be cleared of brush, added to the Van Meter State Park, and opened to the public. This is the first prehistoric remain to be so taken over by the state for purposes of conservation and recreation.

To the Missouri Archaeological Society belongs the credit for bringing about this transaction. At the first meeting of the Society, in 1934, it was decided that one of the chief aims of the organization was the preservation of our prehistoric remains, and among the remains most worthy of preservation was mentioned the "Old Fort". Mr. H. W. Hamilton, of Marshall, was appointed chairman of a committee to investigate the possibilities of purchasing the property and converting it into a park. The minutes of the Society show that at every annual meeting the "Old Fort" came up for discussion. At times the note was pessimistic, at other times hopeful. "The owners will not sell." "The price is too high." These, and similar remarks were heard year after year. Mr. Hamilton's efforts were untiring, however, and the recent purchase is very largely due to his persistence.

In the year 1937 CONSERVATION was a familiar word in Missouri. Wild life was to be conserved; historic sites were being taken in hand; the proposed destruction of a 300-year-old oak tree was met with a wave of public indignation. A fine thing, indeed, to preserve our treasures! But archaeologists were saying, "If historic remains are to be preserved, why not prehistoric? If Nature's works are worth saving, why not Man's?" With this thought in mind, a delegation from the Society descended upon the Missouri Legislature in the spring of 1937, a few weeks before the time for adjournment.

They were well received by the members of the Legislature. Representative Guy Abney and Senator Charles Ewen agreed to introduce the measure in their respective bodies. Many other representatives and senators were interviewed, and their assistance was promised. The owners of the site had placed a price on the property which local people considered a fair one. At the time, there was established in the nearby Van Meter Park a camp for transients, whose labor would be available for the restoration of the earthwork. The superintendent of the Park was eager to take the "Old Fort" under his charge. The situation seemed ideal - for a small sum the state could purchase a priceless antiquity, and its restoration and superintendence would add no financial burden. A personal letter was written to every member of the Legislature pointing out these facts. A few days later the appropriation was granted.

That, however, was by no means the end of the problem. Immediately thereafter the transient camp was abolished, and along with it our hopes for a labor supply. The Governor, quite properly, refused to release the money for the purchase of the property until he could be assured that labor would be available for the necessary work, and that proper supervision would be afforded. The amount appropriated by the Legislature was sufficient only for the actual purchase of the land. A year was spent, therefore, in trying to discover a source for labor and supervision that would meet the Governor's demands. The end of 1938 was approaching, when the appropriation, if not used, would be lost.

Thereupon the present writer and President Wrench, of the Archaeological Society, wrote a lengthy letter to the Democrat News of Marshall, pointing out the advantages of the "Old Fort" and the necessity for immediate action. They then made a trip to Saline County and interviewed Mr. Patterson, Secretary of the Chamber of Commerce, Mr. Hamilton, and others. Following this, a petition to the Governor was prepared, in which the purchase of the property was urged, and the promise was made that the earthwork would not be molested until the work could be done under the direction of someone whose qualifications would meet with the approval of the State Archaeological Society, the University of Missouri, and the Smithsonian Institution.

This petition was prepared by Messrs. Hamilton and Patterson, signed by Mr. Charles L. Bacon, President of the Marshall Chamber of Commerce, Mr. A. H. Orr, President of the Saline County Farm Bureau, and Judge T. H. Harvey, President of the Saline County Historical Society. It was presented to the Governor by Mr. Abney, and, after some consideration, granted. Among others who were instrumental in bringing about the purchase were Dr. J. L. Jones, former member of the House of Representatives, and Mr. John D. Taylor, Chairman of the Appropriations Committee.

The Governor's decision was taken to the State Park Board, who arranged for the purchase of the property, and in whose hands responsibility for the site now rests.

What is the "Old Fort"? How old is it? What was it used for? Such questions are the first ones to be asked by the average person. For the archaeologist, on the other hand, they are the last ones to be answered. Much painstaking work needs to be done before prehistoric remains can be dated and classified, and their functions explained.

The "Old Fort" is an earthen enclosure. It is definitely artificial, and its purpose, possibly, defensive. Its northern and southern ends are on the summit of a ridge, while the eastern and western sides run along the slopes at various elevations, conforming to the topography. The total length of the wall is 2,700 feet. Except at the ends, approach is possible only by climbing the slopes, but these are not steep enough to be difficult. The two ends are the most vulnerable points. These are defended, on the north, by overlapping walls, and on the south, by a complicated arrangement of walls and trenches. (See map, page 2.)

At the northern end are two mounds. These have been dug into repeatedly, and are doubtless ruined for scientific purposes. Reports are to the effect that "many skeletons were found". At the opposite end skeletons are reported also to have been found, and still another from the inside of the structure near the western wall. It is extremely unfortunate that we have no reliable information on the cultural and skeletal material that has been taken from the site.

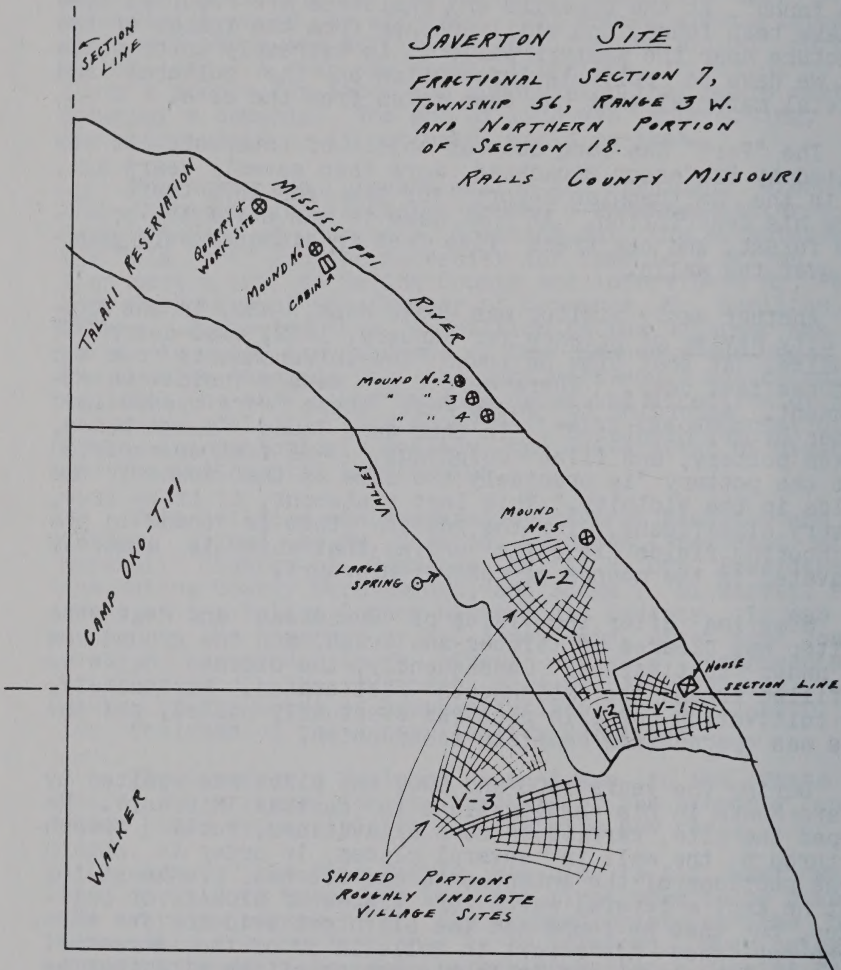
The "Fort" has long been an object of interest. It was visited by Professor Broadhead more than seventy years ago, and in the Smithsonian Report for the year 1879 there appears his description. At that time it was still in primitive forest, and oak trees five feet in diameter were growing over the walls.

Another early visitor was Judge West, who, in the Kansas City Review of Science for January, 1882, also described the site. At that time he found "the intrenchments from two to three feet deep." There were four mounds inside the embankment. According to Judge West, these "were opened last summer by Mr. Middleton". In them were found "human bones, broken pottery, and flint chippings." He further reported that the pottery "is precisely the same as that found in the fields in the vicinity." This last statement, if it be true, is very significant, for the pottery that is found in the neighboring fields is quite unlike that which is commonly excavated in the mounds of central Missouri.

Sometime after the visits of Broadhead and West the hilltop was cleared of timber and brush, and the ground was put under cultivation. Consequently, the ditches began to be filled in and the embankments obliterated. Fortunately, the cultivation of this plot was eventually halted, and the site was spared from complete destruction.

During the years 1906 and 1907 the place was visited by Gerard Fowke in his explorations in central Missouri. He mapped the site, carried on some excavations, cutting trenches through the wall in several places, in order to obtain cross sections of the embankments and ditches. Fowke states that he kept a careful watch for traces of pickets or palisades, but that he found not the slightest evidence for them. Fowke published his report in Bulletin 37 of the Bureau of American Ethnology, and it is his sketch of the site that we have reproduced here.

The "Old Fort" is in the center of a rich archaeological field. Nearby is an extensive village site, which we are more and more convinced was the home of the Missouri Indians, and various other cultural manifestations appear also in the immediate vicinity. The "Fort" nevertheless is still a mystery, but one, we hope, that careful archaeological research may succeed in clarifying.


SAVERTON SITE
FRACTIONAL SECTION 7,
TOWNSHIP 56, RANGE 3 W.
AND NORTHERN PORTION
OF SECTION 18.
RALLS COUNTY MISSOURI
SECTION LINE
TALAHI RESERVATION
MISSISSIPPI RIVER
QUARRY & WORK SITE
MOUND No. 1
CABIN
MOUND No. 2
" " 3
" " 4
CAMP OKO-TIPI
VALLEY
MOUND No. 5
LARGE SPRING
V-2
HOUSE
SECTION LINE
V-2
V-1
V-3
WALKER
SHADED PORTIONS ROUGHLY INDICATE VILLAGE SITES

THE SAVERTON SITE

By

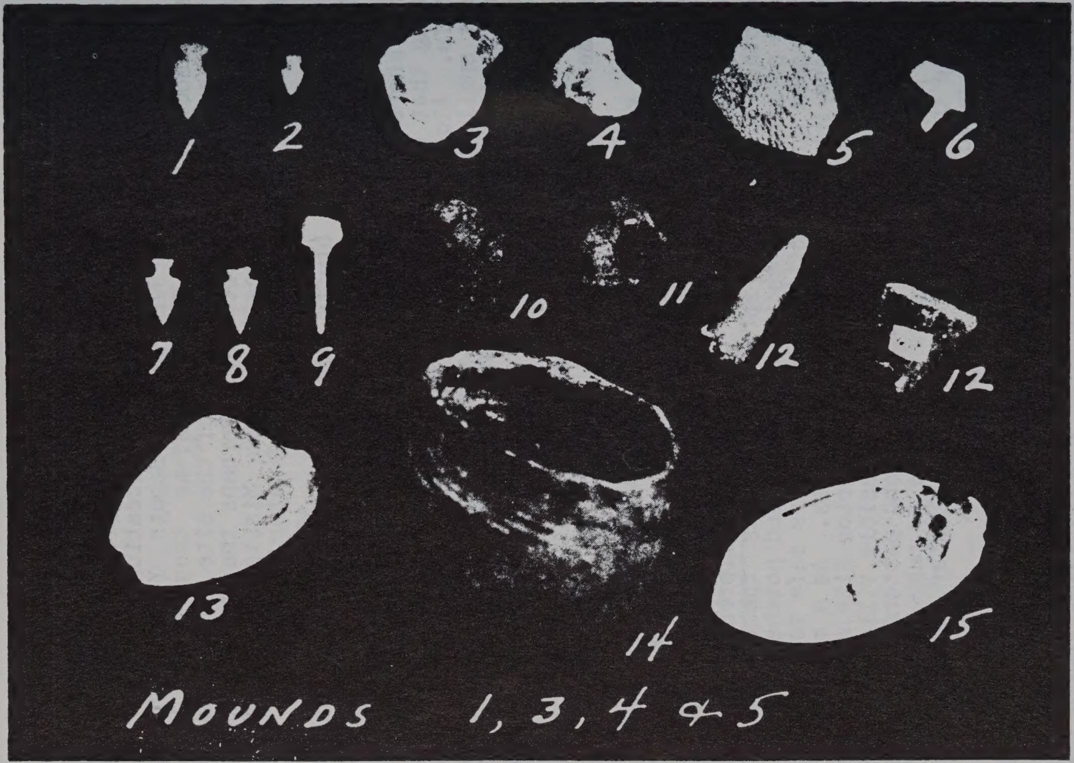
J. Allen Eichenberger

The Saverton Site, located in Saverton Township, Ralls County, six miles south of Hannibal, afforded its prehistoric inhabitants an excellent village location. This, at least, is the opinion of the Hannibal Boy Scouts, Young men's Christian Association, and Girl Scouts, as these groups have recently acquired a large portion of the site, and are developing it into a permanent camp. Perhaps the main attraction, in addition to its location on the Mississippi River, is a large spring that emits a gallon of water a second.

From the high bluffs, where the prehistoric inhabitants built their burial mounds, a panoramic view of the Mississippi River and the Illinois bottom lands may be seen. Here too,a short distance from the village site, is evidence indicating that chert was quarried from deposits in the limestone cliffs. Along the ridge at this point is an abundance of chert spalls of the same poor-grade material as that found in the cliffs below. This spot has been carefully hunted over many times, but no artifact or broken piece showing secondary chipping has been reported. The spalls are, for the most part, large and rough, indicating that only crude or large implements were fashioned.

The village site, or sites, have been indicated V-1, V-2 and V-3 (See Page 6). V-1 and V-2 are separated only by property lines. However, the center of V-1 seems to be nearer the river, thinning out toward V-2. V-3 is entirely separated from the other two, being on a different hill and on the other side of the spring creek. As these sites are in close proximity, and as the artifacts and potsherds from all three seem quite similar, it is perhaps safe to assume that they were inhabited by the same peoples. As a matter of fact the first artifacts found at the Saverton Site were not separated on the basis of these three possible villages. However, since different phases of the Woodland pattern appear to be in this vicinity, it seems desirable to make the distinction of these three villages at the site. Later finds have been so segregated.

About three miles southeast of the Saverton Site is a small creek known as Fool's Creek, which heads a short distance from Salt River and flows into the Mississippi. Numerous sites along this creek have been yielding finely chipped artifacts, apparently representing a separate phase of the Woodland culture. (See Plate V.) Many of these are quite large and are, for the most part, heavily coated with patina. A few such pieces have been found near the Saverton Site, but it is questionable whether they were left by the inhabitants of the site, or were carried there by these other groups who no doubt roamed the same hills. There follows a report upon the mounds in the vicinity of the Saverton Site.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MOUNDS 1, 3, 4 & 5

PLATE I

Mound No. 1. Height 3 ft. 6 in. Diameter 38 ft. An opening was made near the center of the mound in 1933 by Mr. Hugh Dysart, of Hannibal. A number of broken skulls and bones confused with limestone slabs was found, indicating that a previous excavation had been made. Several small points of flat flake technique were the only artifacts uncovered. A great deal of limestone was used in the construction of the mound, some of which was visible from the surface. It is quite possible that other undisturbed skeletons may be found near the outer edges of the mound.

Mound No. 2. Height 1 ft. 6 in. Diameter 24 ft. Sunken place near center. No record of previous excavation.

Explanation of Plate I

1, 2 - From Mound No. 1.
3, 4 - River shells found near skull of skeleton 1, Mound 3.
5 - Fragment of grit-tempered, cord marked pottery found above skeleton 1, Mound 3.
6 - Small, flat, flake technique perforator (?) found on surface of Mound 3 prior to 1938 excavation. A similar unbroken specimen was found on the surface of a mound located ten miles upstream. See sketch below.
7, 8, 9 - From Mound 4.
10, 11 - Hematite paint stones from Mound 4.
12 - Broken, grit tempered clay pipe, part missing, from Mound 4.
13 - River shell with smoothed edges found in pot (14), in Mound 5.
14 - Grit tempered, cord roughened pot, from Mound 5, near surface at highest point.
15 - River shell from Mound 5.

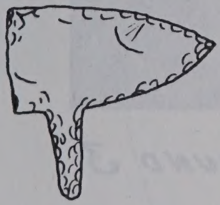
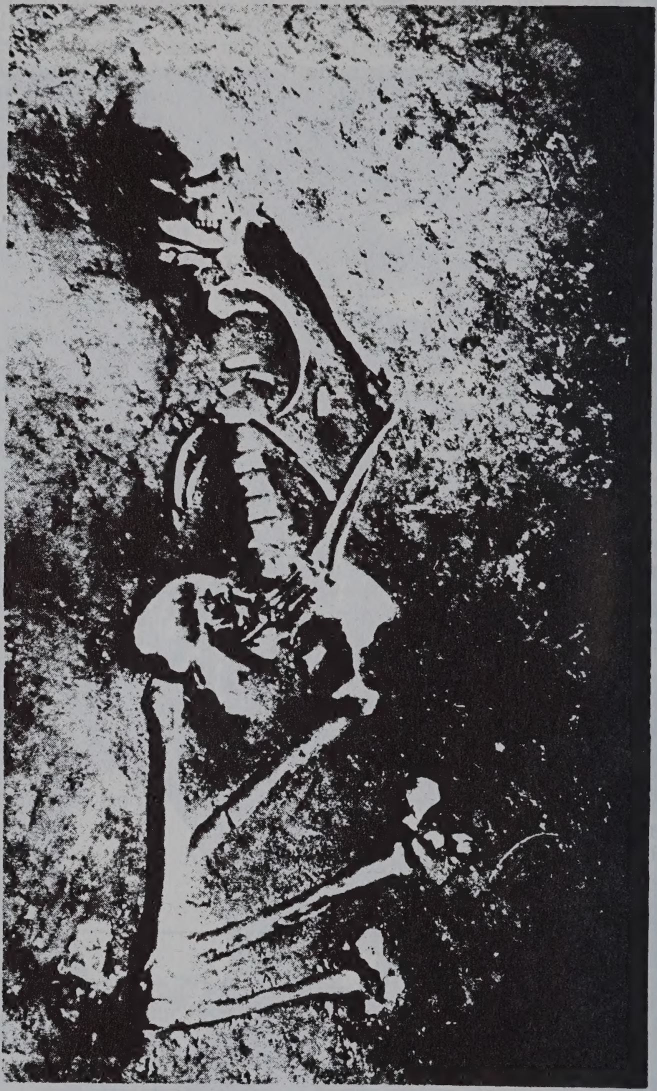


Fig. 1. Artifact found on surface of a mound located in the SW¼ of Section 12, Twp. 57 N, Range 5 W, Marion County, ten miles upstream from Saverton Site.

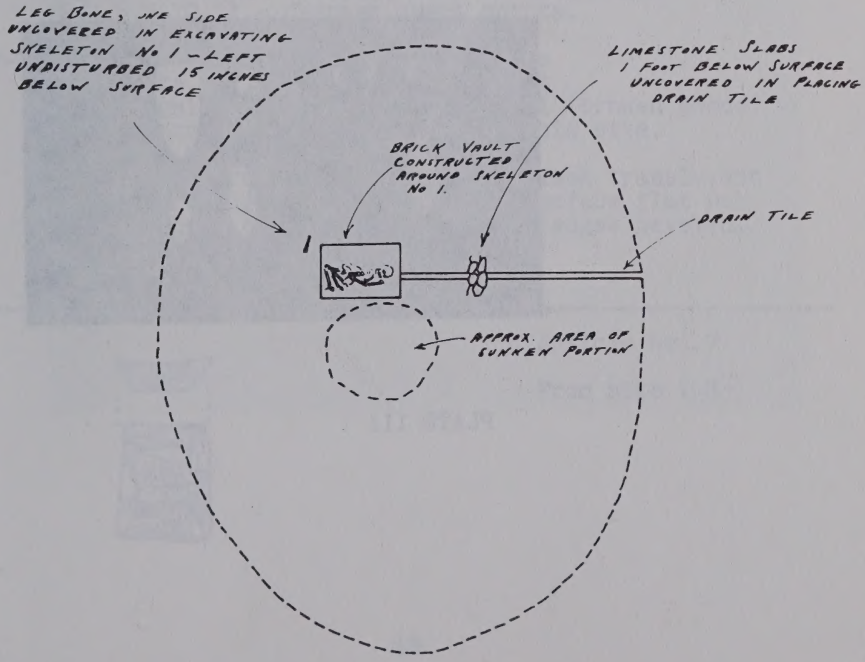


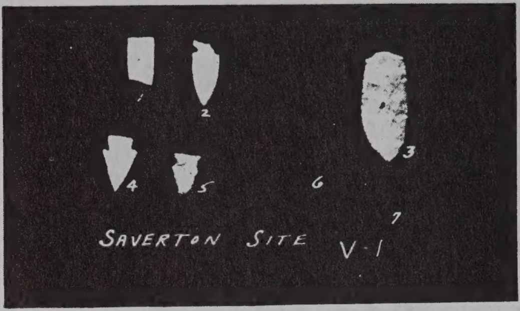
SKELETON No. 1, MOUND 3

PLATE II

Mound No. 3. Height 3 ft. 6 in. Diameter 41 ft. Sunken place near center. No record of previous excavation. Excavation begun May19, 1938, by J. Allen Eichenberger. A trench was dug from near the center of the mound in a northernly direction until a skull was encountered. After uncovering enough bones to determine the general position of the skeleton, dirt was spaded out to a depth of about ten inches above the bones. The remainder of the dirt was removed with a spoon, care being taken to leave the bones in position. Only small pieces of rock were found. One small sherd of grit tempered pottery, bearing twisted cord imprints, was found in the dirt about a foot above the skeleton. Several bits of broken shell were found near the skeleton, including several near the skull. The body had apparently been placed on its back, head to the east, tilted to the left, left hand on stomach, left leg bent with knee under right leg, and both feet drawn up toward left hip. The right arm bones, together with several of the vertebrae and ribs, were missing, presumably carried away by a rodent. The size of the bones suggests an individual about five ft. seven in. in height. The body had been placed on the original ground level and the mound built over it. Its depth from the surface was 3 ft. 2 in.

DIAGRAM MOUND No. 3
SCALE - 1/8" = 1'


LEG BONE, ONE SIDE UNCOVERED IN EXCAVATING SKELETON No 1 - LEFT UNDISTURBED 15 INCHES BELOW SURFACE
LIMESTONE SLABS 1 FOOT BELOW SURFACE UNCOVERED IN PLACING DRAIN TILE
BRICK VAULT CONSTRUCTED AROUND SKELETON No 1.
1
DRAIN TILE
APPROX. AREA OF SUNKEN PORTION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SAVERTON SITE V-1

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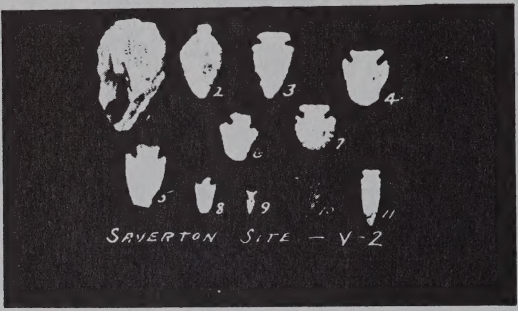
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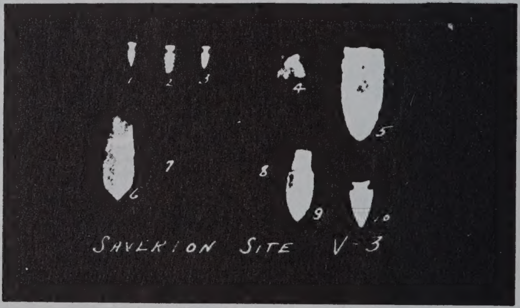
11
SAVERTON SITE — V-2


1
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10
SAVERTON SITE V-3

PLATE III

Mound No. 4. Height 3 ft. Diameter 42 ft. Sunken place near center. No record of first excavation. Reopened in 1934 by a group of boys who found and preserved several objects which are now in the possession of the author. These include a grit tempered clay pipe, two hematite paint stones and several chert pieces including a small perforator. It is possible, but unlikely, that undisturbed burials may yet be found in this mound, as a building has since been erected over it.

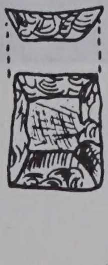
Mound No. 5. Height 4 ft. 6 in. Diameter 42 ft. An opening was made near the center of the mound in 1933. Near the surface was found a small grit tempered pot, elongated globular in shape, with slightly flaring lips and cord roughened exterior; capacity about one pint. In the bottom of the pot was a river shell with smoothed edges, apparently for use as a spoon. Fragments of several skeletons were found intermingled with large limestone slabs. Several river shells were found near the bones, but no artifacts were procured. It is quite likely that other undisturbed skeletons may be located near the edges of this mound.

Explanation of Plate III

V-1 -1,2,3,4,5 - Chipped chert implements.
    6 - Grooved axe
    7 - Cord marked, grit tempered potsherd.

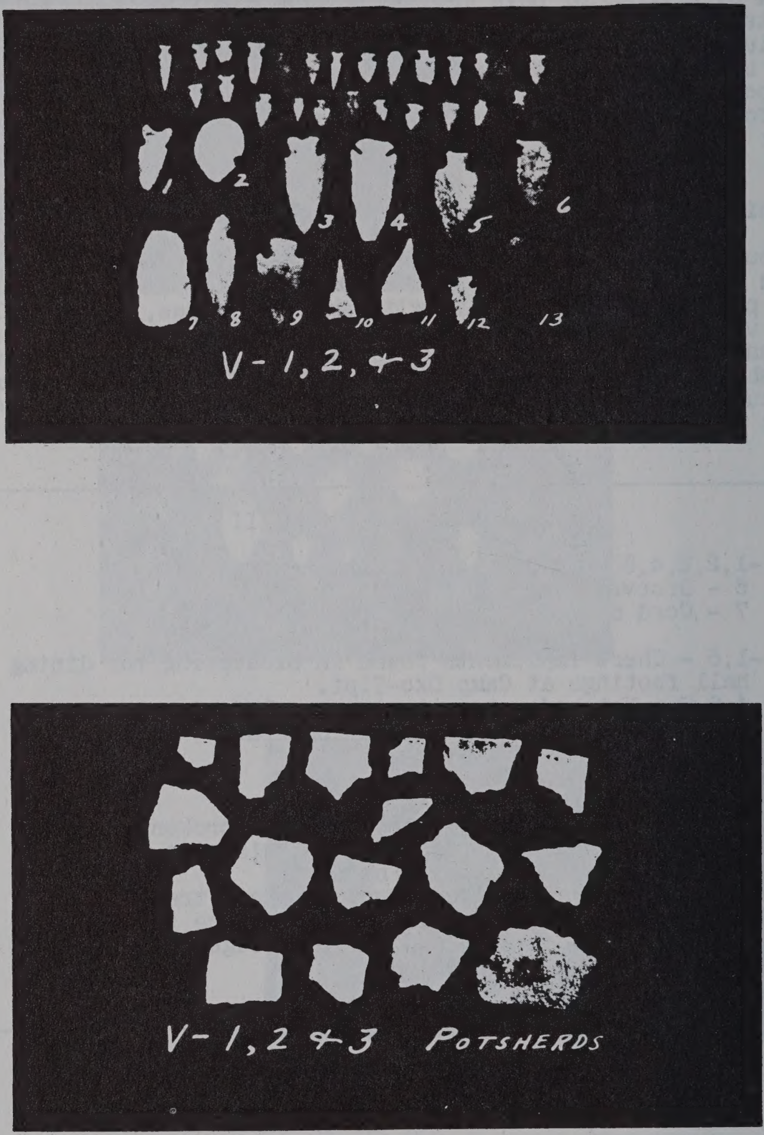
V-2 -1,5 - Chert implements found in excavating for dining hall footings at Camp Oko-Tipi.
    4,6,7 - Notched scrapers with beveled edges
    2,3,8,9,10,11 - Chipped chert points.

V-3 -1,2,3,6,9,10 - Chipped chert points
    5 - Gouge, or chisel-like implement
    4 - Roughly conoidal shaped crystal (broken geode) - several such stones found on this site.
    8 - Club head, or grooved hammer
    7 - Small scraper-like object of black translucent material (not obsidian); one surface flat but slightly concave, and all four edges beveled. See illustration below.



Article No. 7

From site V-3


1
2
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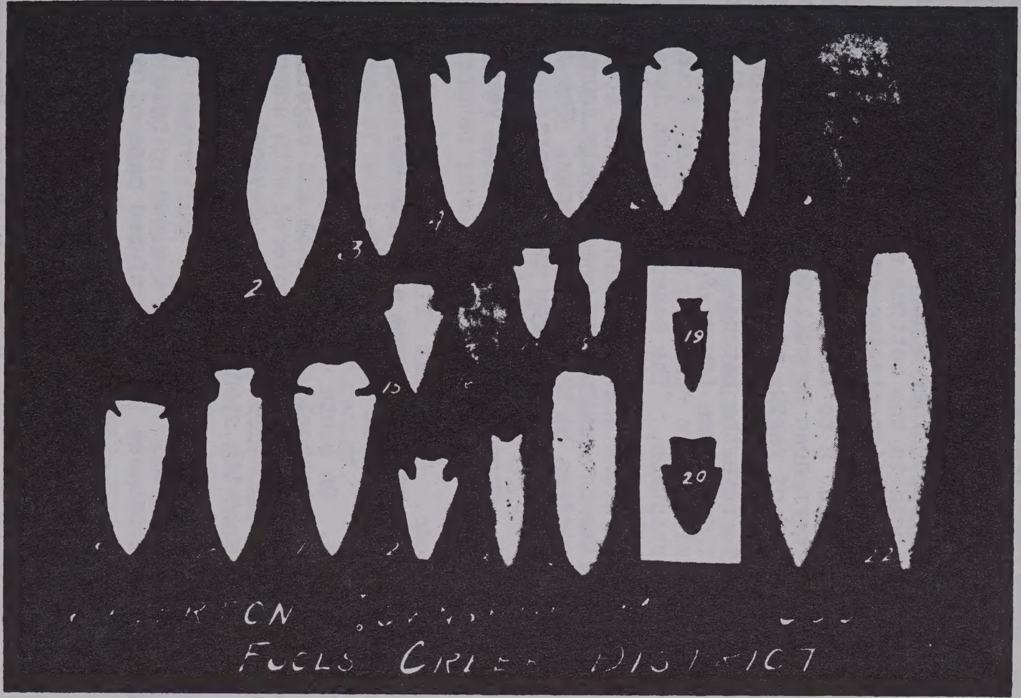
13
V-1, 2, & 3
V-1, 2 & 3 Potsherds

PLATE IV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20
22
FOOLS CREEK DISTRICT

PLATE V Artifacts found 3 miles from Saverton Site.

EARLY INVESTIGATIONS IN NORTHEAST MISSOURI

J. E. Wrench

The earliest investigations of the Indian remains of Northeast Missouri seem to have been those carried on by George L. Hardy and Fred B. Scheetz of Monroe City, who reported on some mounds along the Salt River in western Ralls County in the Annual Report of the Smithsonian Institution for 1881 (pp. 533-536). They dug a number of mounds on some eight different sites. They stated that the mounds usually occur in groups both in the bottoms and on the ridges, although they do not mention digging any of those in the bottoms. The mounds were usually circular and from 20 to 60 feet in diameter and 2 to 12 feet in height, the smaller ones having been worn down by cultivation; and they were described as composed of earth, of stone, or of both arranged in layers. "Where stone was used at all, the plan seems to have been first to pave the natural surface with flat stones in one or two thicknesses for a foundation." Within the mounds human remains were "almost invariably" found, there being only one exception. "The bones were much decayed..... although almost entire, except those of the head." The head always rested on a stone and was crushed by the stones above it. Stone implements and pipes were rarely found in the mound itself but often in the fields nearby. The following are the sites investigated by Hardy and Scheetz:

1. SE 6-55-5. Stone mound. Dug up forty years before. Single extended skeleton of large size.

2. Same group. Base flat limestone thrown together without order. Alternate layers of earth and stone. Part of globular pot with greasy soot inside.

3. SE 6-56-6. On south side bed stone formed a shallow trough filled with charcoal, both animal and vegetable, and part of calcined human femur, and covered with unburned flat stones. No trace of fire elsewhere. Several skeletons in two separate layers with stone and earth between.

4. WSW 4-56-6. Mound had been cultivated and human bones turned up by plow. On N and S sides single skeletons laid E and W, and between them a confused mass of bones.

5. NE 8-55-6. Mound 50 x 6 feet opened in 1853 by Hardy. Single extended skeleton. Dry wall of vault remains 1½ feet high. Covered with large flat stones.

6-9. NW 18-55-6. Four mounds on Round Knob. Human remains in all. Largest contained remains of wall of vault.

10. NE 24-55-7. Mound of stone 20 x 120 on top of Wilson's Knob. Found to be a row of 9 circular burial places about 8-9 feet in inside diameter. Wall still 20 in. high.

11-14. Four mounds on ridge to W of preceeding. Human bones in fragments and square cists with 8-9 foot sides.

15. NWSW 12-55-7. Mound on secondary ridge. Two skeletons with one head toward W and other toward E. Beneath one a trench filled with stone and covered with flat stones on which the skeleton lay.

* * * * * * * * * * * *

In the same Smithsonian Report (pp. 537-538) Joseph C. Watkins, of Ashley, reported on mounds opened along the upper course of the North Fork of the Cuivre River, as follows:

1. SW 16-51-3. Two skeletons and fragments of pottery.

2. Same site. Rectangular vault 4 x 5 feet, containing remains of eight skeletons with a few pots.

3. Same site. Vault of flat rocks in shape of a coffin with a few much decayed cranial bones.

4. NWNW 24-51-3. Large vault with much decayed human remains; three flint arrowheads, small clay vessel; steatite pipe "with figurehead on its front."

5. Same site. Nothing found.

6. SE 24-51-3. Junction of Indian Creek and Cuivre. Bone and pot "which shows some attempt at ornamentation and a peculiar rock, oblate ellipsoidal in form, with depressions (central) on its opposite sides. Around these depressions are 36 marks, arranged in groups of threes. All seem to have been diminished in altitude by continued exposure to the elements."

All these mounds were on the bluffs. They were circular and composed of soil and rock, in some cases alternating, or of clay with rock vaults in the center.

* * * * * * * * * * * * *

The only river bluff mounds excavated in this area are those reported by Cyrus Thomas in the Twelfth Annual Report of the Bureau of American Ethnology. He worked in two groups of mounds, one at the junction of Sugar Creek and Fox River, and the other, the Boulware mounds, ten miles north of Canton; and a single mound two miles north of Canton. These, in Clark and Lewis counties, were as follows:

Sugar Creek Group

1. Circular mound, 30 x 3 feet. "Fragments of rude pottery found."

2. Very small circular mound. Nothing found.

3. Mound 35 x 5 feet. Stone cist 2 x 7 feet covered by stone slabs. Others heaped over it, and covered with hard earth and a foot or more of local soil. Extended skeleton.

4. Mound a little smaller than No. 3. Charcoal and ashes mixed with bones. Indications that one or more bodies (or bones) had been burned upon natural surface of earth near center, and then covered with rough stones thrown in without system to depth of 3 feet and over diameter of 10-12 feet.

Four other mounds were excavated, but "nothing of interest was obtained from them."

Boulware Group

This was a group of 55 mounds, situated ten miles north of Canton, on a bench or terrace 20 to 40 feet above the open bottoms of the Mississippi River. Several of these were excavated with the following results:

4. Near top were decayed fragments of human skeleton and some broken pottery, encircled by a row of flat stones set up edgewise and covered with flat stones. Beneath these was a layer of very hard, white-colored earth, scattered through which were fragments of charred human bones, pottery, charcoal and stone chips.

5. Nothing found except "a core of hard earth having appearance of dried mortar containing patches of soft charcoal, pottery fragments, and flakes of stone."

11. Mound 60 x 6 feet. Fragments of human bones and round pieces of pottery in a matrix of dried mortar.

26. Mound 50 x 5 feet. Only fragments of charcoal, ashes, small rounded pieces of bones and pottery.

46. Mound 60 x 6 feet. Conical and unusually symmetrical. Outer layer of ordinary top soil about a foot thick. Remainder "unmistakably composed of dried mortar in which fragments of charred human bones, small rounded pieces of pottery, stone scrapers and fleshers were mingled with charcoal and ashes."

Several others were excavated, concerning which the author reported "no remains", "dried mortar", "fragments of human bones", and the like.

Finally, a mound two miles north of Canton, in Lewis County, was reported upon. It contained "decayed human bones mixed with charcoal, ashes, a few fragments of rude pottery and stone chips." These were lying on the natural surface and were covered with nearly "three feet of hard earth."

These excavations were all made, and reported upon, around the year 1880. It is interesting to note how the techniques of archaeology have changed, how much more thorough and painstaking the modern methods are, and how much more information can now be gathered from a prehistoric site. It is also interesting to note how Thomas, who had a reputation as an archaeologist in his time, often furnished less information on the sites he dug than did amateurs who worked in Pike and Ralls counties.

The Village of the Big Osage*

Joe Harner

It is a privilege for me to speak to you for a few minutes on our activities in Vernon County. While we do not have a local archaeological society, there are perhaps fifteen members of the State Archaeological Society in Nevada. These are mostly professional and business men, and all are interested and active in collecting specimens and investigating the early history of the region. Their finds, while interesting and valuable, would be much more so, in my opinion if we had some local organization where records could be made and kept, and discussions of local archaeological problems regularly held.

During the past year I believe we have definitely located the village site of the Big Osage. "White Hair", the famous chief of this tribe lived there, and is buried on Timbered Hill, near Nevada. This information was secured from a Mr. A. B. Moore, who now lives in Texas. He states that in the early days he lived on the land where the Osage village had formerly stood, and that he had talked with various Indians from the Indian Territory, who used to return to the locality for a number of years after they were moved to the Territory. He states that the site was covered at the time of his residence by a dense plum thicket, where he used to dig out a large number of old gun parts.

The site is located on a farm now owned by Mrs. W. H. Carrington, in the central part of Sec. 34, T 34 N, R 31 W. The camp is in the shape of an oval, measuring some two hundred yards at the long axis, which runs almost due north and south. The lodges, judging by the refuse heaps, must have stood about forty feet apart.

The camp is nine miles south from the place where Pike landed on the Big Osage River in 1818. A scale drawing of the site has been prepared by Mr. F. L. Snyder, of Nevada, a blueprint of which has been deposited in the files of the State Society.

Evidence points to numerous smaller Osage village sites at various places in this locality. As little artificial material is found at these sites, there is no doubt that such places were moved frequently for various reasons.

I doubt that the Big Osage village was moved after it was established, as shell and bone fragments are found to a depth of twelve inches. This would suggest a long period of occupation.

There is no evidence to indicate that these Indians made flint arrowheads while they lived at this place. However, flints for use in the old flintlock muskets are found, as well as oval-shaped flints for striking fire. Several arrowheads cut from sheet brass have been found, and this probably means that while they had not entirely abandoned the bow, they ceased manufacturing flint points shortly after they came in contact with the traders dealing in firearms.

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* This paper was read at the Annual Spring Meeting, 1938.

Trade axes and parts of old guns are still to be found at this site. Small fragments of lead are to be seen also, which they used in the manufacture of ammunition.

About six miles to the north and west of this site is another site - possibly a later camp of the Little Osage. This was visited in the summer of 1937 by Professors Wrench and Berry and Dr. Wedel, of the Smithsonian Institution. Dr. Wedel at that time secured considerable material that came from the time of the contact between Indian and whites.

The site described in this paper is in plain sight of Timbered Hill to the north, and Blue Mound, some ten miles to the northeast. While tradition states that "White Hair" was buried on Timbered Hill, the Indians informed Mr. Moore that their chiefs were buried on Blue Mound, known to them as "The Wailing Mound." This statement seems to be verifiable, as the writer with several other local amateurs visited the place, finding evidences of burials.

No Indian pottery has been found on this site, though fragments of soapstone pipes have been collected. Pottery fragments are found at various places in the region, indicating older village sites in this part of the state.

I am convinced that other Indian civilizations than the Osage are to be found in Vernon County. Personally, I am interested in the low, flat mounds found throughout the Ozark region. These mounds extend from Texas, through this region, and on to the north. There are several hundred in this county alone.

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THE ANNUAL SPRING CONFERENCE

The Annual Spring Conference of the State Archaeological Society will be held this year in Kansas City.

The date has not yet been decided upon, but will probably be on Friday, May 5 or May 12. The Secretary will be glad to hear from the members as to their preferences. He also herein invites anyone to appear on the program who has anything of archaeological interest that he wants to discuss. Our program is by no means limited to professionals.

The meetings in the past have been very enjoyable, and the quality of the papers has grown steadily better. Anyone who has attended our recent meetings - at Springfield, Arrow Rock, or Columbia - will recommend them to your consideration.

MEMORIALS TO THE AMERICAN INDIAN

Rev. A. H. Burress

When our forefathers landed on the American continent, it has been said that "they first fell on their knees - and then fell on the aborigines."

My sympathies have always been with the Indians, and I think that any fair-minded person will have to admit that they did not get a square deal. However, our forefathers did honor the Red Man, and have left great and standing monuments to him all over this land. Time will not destroy these monuments, and earthquakes, erosion, wind, storm, and fire will not disturb them. I am speaking of the Indian names of states, cities, and rivers.

Over half of our states have Indian names. So with most of our large rivers - Ohio, Illinois, Missouri, Mississippi, Arkansas. Four of our Great Lakes have Indian names, Superior being the only exception.

Each generation has done honor to the Indian in recognizing his uncanny ability to select ideal places to live. The white man found that the Indian village sites were well chosen - strategic locations and ample natural resources. Water was handy for camp purposes and navigation; wood for fuel and building; game to be hunted; fish abundant; and rich soil for agricultural pursuits. Each generation, therefore, as it moved west, saw the advantages of the Indian's choice, and endorsed it by establishing its own towns and cities on the same spots. Thus we have Omaha, St. Joseph, Kansas City, St. Louis, Chicago, New York, and hundreds of other cities and towns, standing on old Indian camp grounds.

I have no means of checking on the number of smaller rivers and creeks, of mountain ranges, valleys, counties, lakes, and towns that have Indian names. But they are doubtless many. All of these are monuments to a vanquished race who owned and occupied the American continent for hundreds and thousands of years.

The archaeologist and ethnologist have but two sources of information to go to in studying these people - the books that have been written by explorers and investigators, and the artifacts, mounds, and graves that still remain. The people who erected these mounds, manufactured the artifacts, and buried their dead in the earth are gone forever. It seems to the archaeologist very, very important to preserve these remains and to keep adequate data on every specimen of workmanship that is found. For there will never be any more.

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The Archaeological Exhibit at the 1938 State Fair

For the fourth consecutive year the Society has sponsored an archaeological exhibit at the Missouri State Fair. This venture, since its inauguration, has been under the direction of Mr. J. B. L. Davis, of Marshall, who has devoted a great deal of his time to it, and to whom goes the credit for having made the exhibit so popular. It is the hope of the Society that these exhibits will have great educational value, in addition to providing amateur collectors with the opportunity to show and discuss their hobby.

The exhibit of 1938 was the largest yet, and Mr. Davis reports that it is only the limitations of space and facilities that prevents its being even larger.

Prizes awarded for individual collections were: 1, Dr. Robert Nuckles; 2, Willard Elsing; 3, Alva Gauldin.
For members of Scout troups: 1, Frank Foster, Jr.; 2, Earl Lubinsky.
For school groups: Mearl Millard and Harvey Millard, Marshall High School.
For best county collections: George H. Cramer (Pettis); Fred Allrich (Kansas); J. M. Shippee (Clay); R. J. Duerr (Henry); Frank Foster (Greene).

THE
Missouri Archaeologist

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The
MISSOURI ARCHAEOLOGIST

The American Indian Today

An Address Delivered before the Fifth Annual
Spring Conference of the Missouri Archaeological Society
By D'Arcy McNickle, Bureau of Indian Affairs

You who are here today, I take it, are students of the past. You are professionally concerned with the Indian that was--and by this I am not suggesting that you are not interested in the Indian that is, and that is to be. Merely, I refer to the fact that as members of an archaeological society you are devoted to examining into and reporting upon the buried history of the aboriginal American.

Indian administration, the Indian Service, is primarily concerned with the Indian that is and the Indian that is to be. And in the same way that you look forward from your concern with the unrecorded past, so we, too, whose work it is to help with the forward growth of a people, we too look backward and try to understand the beginnings of these things.

We in the Indian Service have come to realize with some surprise, and perhaps it will be surprising to you, that the Indian race is not a vanishing race. I say that this knowledge comes with some surprise to us, because the Indian Service, frankly, for many years had built its policies upon the assumption that the Indian race would disappear. Years ago, at least as far back as 1887, that branch of the government concerned with protecting the Indian in his property and in his person had set for itself the deliberate policy of severing the Indian from his past. True, this course was entered upon in friendliness; the intention was humane. It was felt that the Indian, so long as he remained segregated from the general population of the country, so long as he remained a special problem, would not have full justice done to him. Moreover, living in a community purely Indian, he would not readily emerge from his tribal past into full participation in the life of the nation. Believing these things, the policy makers of the past set in motion certain plans which had for their purpose the destruction of tribal governments and the breaking up of tribal custom generally. Indian languages were discouraged; Indian ceremony was in many cases prohibited and in other cases frowned upon; tribal resources in the form of land were given out to individual members of the Indian tribes, and surplus land which might have remained in the name of the tribe was purchased by the government and opened to white homesteaders. The whole effort was to make the Indian an individual, in his property and in his citizenship.

I will come back to this general subject of the breakdown of Indian life later. At this moment I mean only to illustrate the fact that Indian administration of another generation was based on the conception of a vanishing Indian. The Indian might survive physically, but he would be assimilated into the general population. The separate Indian reservation would disappear from the geography of our states, and the separate Indian problem would disappear from the general social and economic problems of the nation.

When the present administration of Indian Affairs came into office in 1933, it was with the feeling that we had come into a ruined house. I don't mean that this feeling was entirely singular with the new administration. It was a feeling which was shared, I dare say, by all intelligent people who were at all familiar with Indian history. The Indian administration of Commissioner Rhodes and Assistant Commissioner Scattergood had probably been no less aware of the desperate situation which had developed in the Indian country than was the present Indian Commissioner, Mr. Collier, when he took office. The question was, and it overshadowed everything, every plan, and every hope - could the Indian be saved? Could he be pulled back short of final disaster? His land was all but gone--it had been disappearing at the rate of two million acres a year; the land remaining to him was fast playing out; his capital assets were dwindling so rapidly that it was only a question of a short time until they would be quite gone; his health was bad; his spirit was low; he had not been trained to take part in the enveloping white world--could he be rejuvenated?

And now, I say, comes the surprising realization that the Indian is not vanishing--not in physical numbers, not in capital assets, not in culture content. I do not say his position in our nation is lastingly assured. The Indian is still at the mercy of his conquerors, and will be for generations to come. But at least he is safe for the time.

The Indian population reached its lowest ebb sometime last century--in the 1880's it dropped below 250,000, and it hung in a balance around that figure for some years. Looking back to beginnings, we know that this represented a sharp reduction from the population at the time of America's discovery by Europeans. No doubt you are all familiar with the work of Mooney and Swanton and other writers in this field. There were, within the boundaries of the present United States, let us say, a total population of about 850,000 at the time of discovery. This figure, after 350 years of civilizing influence, was reduced to below 250,000--a total loss of 600,000. Even after the Indian population came to a balance at this depreciated level, the process of attrition continued. In other words, the strain of actual Indian blood grew thinner. There were each year fewer full-bloods. It was this drift toward a thinned out racial strain, as well as the decreasing numbers, which put us in the habit of speaking of the Indian as the Vanishing American.

What has now happened, the surprising thing, is the fact that that long drift towards racial and numerical annihilation has come to an end--and has reversed itself. The Indian race is actually a growing race. It is growing at the rate of 1.6 per cent per year, which is almost double the rate of growth for the whole population in this country. Moreover, the full-bloods are also increasing in number. It is perhaps this latter fact which comes as the greater surprise.

Among some groups, for example the Navajo, where almost the entire tribe of about 50,000 members are full-bloods, the rate of increase is astonishing. This population increase does not represent an increased birth-rate--the birth rate among Indians has always been high; rather it reflects the fact that the death rate among Indians has been checked. To illustrate: Between 1933 and 1936 the Indian death rate declined from 15.5 to 13.7 per cent per thousand of population; and while the latter figure is still 2.2 per cent more per thousand than among the general population, one need only look to 1920 to find that the death rate among Indians at that time was double that of the general population. In part this may mean the growing immunization on the part of the Indian to those diseases which in generations past have been so shockingly fatal to the Indian constitution, and in part it certainly means that our Indian health service has been vastly improved in these recent years.

I have said that Indian assets, likewise, are increasing, after coming perilously close to total annihilation. I will have more to say on this score later on. I want first to refer briefly to the fact that Indian culture, Indian institutions, Indian ceremonial life--that which we call his religion--has survived into our day, and more vigorously and on a wider front than perhaps any of us realized. It is coming to light, or we are becoming aware of it, perhaps because we have abolished that old policy of frowning upon it and of actively running it underground.

Not in the Indian Service alone, but on the part of thinking people generally, there is probably an increasing tolerance toward culture habits other than our own--an increasing hesitancy to brand one civilization as superior to another. Except among those nations or individuals who must find some special devil upon which to load all the faults and shortcomings of their own thinking, no one with any conscience can believe today in the absolute superiority of one branch of mankind over another. We in the Indian Service are not concerned with playing with labels. We have in fact come to realize that any one who takes a superior attitude towards another race cannot perform usefully in the Indian Service. Our task rather is to understand those traits and those institutions which are peculiarly Indian, and use that understanding to develop the means of utilizing these traits and of building upon those institutions a better Indian Service and a more secure Indian life.

Aboriginal Indian life, as I need not tell you, was infinitely varied. It ranged from the almost formless, almost visionless, nomadic wanderings of the interior Athabaskan tribes of the far north, to the highly complicated and highly accomplished city states of Central America. This diversity has come down to our day. In Arizona we find the Hopi Indians living in the very same villages in which they lived before Columbus touched our shores. Their life is infinitely rich in ceremonialism, and in spite of almost 400 years of contact with European civilization, they live much as they have always lived; and so long as we abstain from breaking down the economy by which they have lived and the controls by which they keep their society toned, they will continue to function as any organism functions, yielding when necessary, changing when advantageous. The Hopi are a living people, yet they are an archaic people. And throughout the Indian world this same symbiosis exists--the past functioning in the present. Sometimes that past is hard to discover; it may be fragmentary and distorted, yet inevitably it crops out.

Among the 1,000 or more Indians in the State of Maine, several hundred are full-blood and speak no language but their native Passamaquoddy or Penobscot. And among them you will find a strong drift out of the past.

In the very middle of Iowa, islanded by a world of white farmers, you will find some 400 Sac & Fox Indians, many of them full-blood and speaking no English, and harking back always to the ways of doing of their fathers.

Some of you here may be familiar with the primitive social organization of the Creek Indians. Some of you may know that in its original homeland the Creek Nation, so-called, was in effect a confederation of a number of social groups, to which the English term "town" has been given. The town was actually a tribal unit deriving its sanction from one of four so-called mother towns. The United States Government, when it came to treat with the Creek Indians, found it inconvenient to treat with each separate town unit. It did not matter to the Federal Government that there was no organized central governing body of the Creek people and that authority reposed entirely in the town unit. For more than a hundred years the Federal Government insisted on the Creek Nation conforming to its own erroneous idea of how the Creek Indians were organized. In later years it did not make much difference. The Creek Indians were despoiled of all but a very small fraction of their property, and the tribe itself, in the end, was robbed of its power of decision. More than that, the tribe was uprotted from its ancestral home and transported bodily overland to Indian Territory and left to take root again, if it could. A hundred years has passed since that forced transportation; and now, after all that stretch of years, we are learning a peculiar thing about the Creeks. We are learning that the Creek towns still flourish as they did when the Spanish soldiers first marched into their country. Not only the four mother towns--two of them the white towns of peace and two the red towns of war--but most of the descendant towns, at least 20 in number, have survived to the present day. That is to say, they have retained their town "squares" and their town fires. In the spring of the year they follow the old custom of quenching all the fires in the town and relighting them from one sacred fire. After all these years, the United States Government has at last recognized this highly important social fact. We have recognized the essential Creek organization, and today we are helping the separate Creek towns to organize under constitutions of their own draftsmanship.

On the Fort Berthold Reservation in North Dakota, the Gros Ventre tribe endured thirty years of separation from a certain sacred bundle, which had been a source of power in the ancient life of the tribe. This sacred bundle has been yielded to a missionary by a member of the tribe at the time of his conversion to Christianity, and the bundle had passed ultimately into the hands of a New York museum. The museum accepted it as a dead symbol, and exhibited it as such. To the Indians in question this particular bundle was far from meaningless. They tried for years unsuccessfully to get it back, largely because Indian Service officials could not take the matter seriously. If the symbol were not dead, they probably felt, it ought to be. Two years ago the museum was persuaded to give up the bundle and it was restored to the tribe, and I have no doubt that it is serving today a much more useful function than it served in the museum.

In the Navajo country recently a new hospital was completed at great cost, and representatives of the tribe were invited to attend the opening day ceremonies. In the past the Navajo Indians, like many other Indians, were skeptical on the whole subject of hospitals and doctors. There was a large question mark in the minds of Indian Service officials when the time came to open this new hospital. Would the Indians accept it and use it? When invited to the opening day ceremonies, the tribal leaders took thought among themselves. Finally they decided on a course of action. They would send their own medicine men. The medicine men would make a tour of the hospital, and would properly dedicate it to the tribe by sprinkling sacred meal in each of the rooms. This was done, and today there is no longer any doubt of the hospital's usefulness.

These are but a few notes in passing, illustrating the fact that Indian culture, like Indian life itself, has not been destroyed. Given a chance to express itself, it will doubtless play an even more important part than it has in the immediate past in determining Indian attitudes and Indian life.

What, briefly, is the position of the Indian in the life of the nation today? What, if any, special benefits does he receive because he is an Indian? What, in brief, is the Indian Service doing for the Indian?

Properly to understand the position occupied by the

Indian in the life of our nation we should understand something of the immediate past history of the Indian tribes. I will not attempt to review in so short a time the events leading up to the creation of the Indian reservations. By 1840 Indian tribes had surrendered all but a small fraction of their land east of the Mississippi River, and the practice of establishing reservations where the Indians could be confined more or less under guard became the ruling policy. Most of the present day reservations, of which there are more than 200, were created between the years 1851 and 1880. What happened to the reserved areas, the creation of which, it was supposed at one time, would solve the Indian question? Putting it bluntly, many of the reserved areas were found to be either too large or too valuable for exclusive Indian use. In some cases, it was discovered that Indian reserves stood directly in the path of westward expansion in the shape of projected highways or railroads. A number of reasons were discovered for breaking down these islands of Indian refuge. In 1887 the demand for a revised Indian land tenure policy had become so vigorous that Congress wrote the General Allotment Act. It was to be the great "civilizing act"--and while this phrase must be uttered in irony, I do not imply that there was not honest and sincere intention in the minds of the men who proposed the law. Over and over, in the speeches made in support of the legislation, the words "progress" and "civilization" were used. The Secretary of the Interior of that era remarked: "The enjoyment and pride of the individual ownership of property is one of the most effective civilizing agencies." Individualization was the basic thought. As individuals, rather than as tribesmen, the Indians would come into full participation as citizens in the nation.

At the time of the General Allotment Act there were in Indian ownership some 140 million acres of land. This was an area larger than the State of California. From that year to 1933, a stretch of 45 years, that landed estate shrank steadily, at the rate of almost two million acres per year. When the present administration took office, Indian land holdings had been reduced to 48 million acres--and that is not the whole story. A large part, at least half, of the remaining acres was sterile to begin with, or became so through continued overgrazing. Still other acres, approximately seven million, became so involved in multiple heirship divisions that it was impossible to make economic use of the land. To avoid actual physical sub-division of the acreage, the land was leased to white operators, and the rental money divided, as an easier way out.

So much for the dissipation of Indian land holdings, which has resulted in leaving two-thirds of the Indian population either landless or possessed of insufficient land for self-support. A large part of the total Indian estate was represented by actual money on deposit in the United States Treasury. This money was derived from the sale of tribal land and from treaty agreements. These funds, like the land itself, was spent either for Indian Bureau support or was disbursed in per capita hand-outs to the Indian tribes leaving no capital investment. A total of half a billion dollars was paid out between the years 1900 and 1933.

The theory of the allotment law--that is, of the individualizing and ultimate assimilation of the Indian into the general population--never worked out according to expectations. For one thing, Indian tradition, Indian ways of life, were much more deeply rooted than any one supposed. I have already suggested some typical, but incidental, instances of tradition survival. The reservation, instead of disappearing, became the only friendly haven for the thousands of Indian children leaving the boarding school, and for the older people who never went to school, it remained the center of existence. In other words, relatively few Indians made the transition to white life. Meantime, the reservation having been severely reduced in acreage and economic opportunities--it had not been intended to endure--a generation of entirely landless Indians grew up, and the government had made no provision for assisting them. On some reservations living conditions became so bad that it was hard to conceive how human beings continued to exist there. In a survey made in 1928 by Lewis Meriam on behalf of the Institute for Government Research, it was discovered that 71 per cent of the Indians had an annual per capita income of less than $200; almost 90 per cent had less than $300. These figures included the value of agricultural products raised by the Indians for family consumption.

In 1934 Congress undertook a fundamental revision of its Indian policy. It was spurred on to this by the Meriam report mentioned above, and by a particularly broad and intensive study made of Indian conditions by a sub-committee of the Senate, and by the persistent, courageous criticism of persons outside the Indian Service. Among the most persistent and the most courageous of these had been Mr. John Collier, who was to become Commissioner. Basic legislation was needed to attack the problem, and Congress supplied this legislation in the Indian Reorganization Act, often called the Wheeler-Howard Act, which was approved on June 18, 1934. In simple terms, the Act provides for these things: 1. It prohibits the alienation by sale or foreclosure of land still owned by Indian tribes. 2. It prohibits the individual allotting of lands now in tribal status or lands to be purchased for Indian tribes. 3. It provides for the purchase of new land for tribes that are seriously land poor. 4. It sets up a system of credit by which Indians may finance farming and business enterprises. 5. It permits consolidation of Indian owned lands which have become split into fragments through inheritance. 6. It encourages the organization and incorporation of Indian tribes for political self-rule and economic management of tribal resources. 7. It provides a loan fund by which to assist Indian students seeking higher education and 8. It gives preference to Indians for employment in the Indian Service.

The Act was entirely permissive, not mandatory; that is, the tribes were asked to vote on the question of accepting or rejecting the law. Out of a total of 266 tribes or bands voting, 189 accepted the Act by majority vote. These 189 tribes represent a population of 130,000 Indians, and together with the Indians of Oklahoma and Alaska, who were brought under the Act by amendments passed by Congress in 1936, there are now 252,000 Indians under the jurisdiction of this law.

I mentioned a moment ago that the breakdown and dispersal of Indian assets had stopped; that the tide had been turned and assets were now increasing. Let me illustrate how that has happened.

The Indian Reorganization Act authorized an annual appropriation of $2,000,000 for the purchase of land for landless Indians. That full amount has never been appropriated in any one year--total appropriations of $3,350,000 have been made over a four-year period. With these funds we had purchased a total of 170,000 acres at the close of the fiscal year 1938. The Indian Reorganization Act also provided that surplus lands--that is to say, lands which had been withdrawn from an Indian reservation and opened to homesteading--if they had not been entered for homestead purposes, could be restored to Indian ownership, at the discretion of the Secretary of the Interior. Under this authorization, a total of 392,000 acres have reverted to Indian ownership. In cooperation with the Farm Security Administration, formerly Resettlement, an important sub-marginal land purchase program was undertaken in eleven states. This program has resulted in the purchase of 1,208,000 acres. Land has been secured through other means: By exchanging scattered Indian tracts for solid blocks of state and county lands; by special legislation converting areas of public domain to Indian use; by special appropriation for the purchase of lands for specified tribes; and Indian tribes, encouraged by this expenditure of Federal funds, are voluntarily requesting the use of their own tribal funds for land purchase purposes. Altogether, a total of about 2,500,000 acres has been added to Indian land holdings.

Nor is that all. Indian lands, through years of forced overgrazing, resulting from land shortage for one thing, and from sheer neglect for another, have been tragically wasted. Reliable estimates have placed the total loss of soil coverage at about fifty per cent. The checking of this loss was in itself an enormous emergency undertaking. The Indian Division of the CCC was the first to attack the problem, and in later years the Soil Conservation Service of the Department of Agriculture has joined with the Indian Service in developing control methods. Soil conservation work has been pushed steadily for the past five years, and along with this has gone an important program of stock reduction in the most heavily overburdened areas. Added to that, Indian-owned forests have received the benefit of a huge program of pest control and fire prevention measures. The total effect of this land and forest conservation work has added immeasurably to the ultimate value of these resources.

And still more. One of the important reasons in the past for the failure of Indians to use their lands was the fact that they lacked the credit necessary for operation. Lacking machinery and stock and seed, they were forced to fall back on leasing their land to white men who had access to credit through local banks. Removed from their land, the Indians developed the unhealthy habit of living in closely clustered camps, often around the agency and in small reservation towns, where they lived meagerly while awaiting their lease checks. The only proper corrective to this situation was, of course, the extending of adequate credit sources to the Indians. This also was made possible by the Indian Reorganization Act, which authorized a revolving credit fund of $10,000,000. Through the use of these funds the whole tone of life has been changed for many individuals and for a number of tribes. Indeed, for many Indians credit is the most positive fruit of the Reorganization Act.

I have mentioned only a few of the bolder aspects of the new policy. There is much else that might as profitably be discussed. We believe the policy to be broad enough and sound enough to achieve, if continued, the purpose for which the Indian Service has always worked--the Indian's adjustment to a new world and a termination of his "problem."

To draw the thing together, this new policy is based on two ideas: Tribal organization, and a fuller use of land. Out of organization will come greater participation in the management of property and domestic affairs; and out of land use, by which I mean to include the purchase of land for those who are landless and credit to carry on operations, will come better living conditions. Fundamental to the program is a recognition of the right of Indian culture to survive and enrich the daily life of the individual and the group. Not humanitarianism alone, but a belief that human beings are at their best when they are left at peace in those matters of conscience which come closest to them, prompts this attitude.

What do we mean when we speak of the right of Indian culture to survive? This is a frequent question and, I suspect, the asking of it usually implies a certain skepticism or a certain wonder as to what the Indian Service intends. In the past, Indian administration was working toward the goal of assimilation of the Indian race. Have we abandoned that goal, and are we now seeking to segregate the Indian tribes, to encourage them to follow their old ways, and to preserve them like so many museum pieces for the edification of tourist visiting the Indian country?

Of course, it is not these things. It is not willy-nilly assimilation, whether the Indian would have it or not; and it is not segregation behind reservation barriers. The Indian chooses, as he has always done in these matters. Prior generations of Indian Service administrations said, in effect, that Indians were barbarians or even savages with nothing to lose and everything to gain by leaving their tribal life behind and adapting themselves to civilized living. That kind of attitude was the product of an age which assumed that the human family divided itself in a neatly graduated scale. Civilized man was at the top of that scale, and from him the race descended down into the brute world.

This, we suspect, was an over-simple conception. Mankind has lived in many parts of the world, sometimes under quite simple, what we call primitive, conditions. In other cases, but within a similar epoch of time, the race has developed a highly complex state of existence. In the two cases there is no question of a difference in intellectual level; only there has been a difference in opportunity, in environmental challenges--and the contrasting result has been astonishing. The Indian race never stumbled upon the use of the wheel; and yet we know that in Central America Indian people developed a science of astronomy and a system of numbers which included the concept of zero, on a par and in some cases even beyond the accomplishments of Europeans in the same period of time. Was it a mark of inferior intellect that the Indians did not discover the wheel? Or is it a mark simply of a different type of intelligence? Likewise, I recall to your mind that the Incas of Peru developed a state of society from which poverty and economic fears were abolished, an accomplishment which the nations in the world today are still seeking. The Inca Indians were also without a wheeled instrument or vehicle. Were their minds inferior?

I have suggested these things by way of emphasizing the shallowness of the thought which held that the Indians had no past worth remembering. The Anglo-Saxon peoples are rightfully proud of a long tradition of social and political innovation. It was among the Anglo-Saxon people that the basic conceptions of the modern democratic states were developed. Let me remind you that the Iroquois Tribes were on the threshold of developing an inter-tribal democracy which had for its ultimate goal the banishment of war from among the Indian tribes and the bringing of an era of peaceful rule under a system of representative government. The coming of the white man destroyed this venture, as previously it had destroyed the great Aztec venture in the development of an empire, and as it destroyed the Inca venture in economic planning.

Quite apart from these major Indian experiments in government and in social undertakings, the Indian race generally has an infinitely rich nature upon which to build a future world. The Indian has the quality of belonging to the earth which, I suppose, at one time all peoples of the earth had and enjoyed. He belongs to the earth because he has never divorced himself from it. The whole trend of his existence has been, not to master the forces of the earth and so to raise himself above and to grow away from the things of nature; rather his desire has been to live in nature, to be part of it, to worship it, and to endure in it. This is what we attempted in the past to break the Indian away from. We never wholly succeeded, but in so far as we did succeed we left individual Indians without vitality and without spirit. We left them bewildered and half destroyed.

We have turned from that old course of doing. We have decided that an Indian, like an Anglo-Saxon, is entitled to believe in himself, in the strength of his past, and in the glory of his future.

ARCHAEOLOGICAL SURFACE SURVEY OF JEFFERSON COUNTY, MISSOURI

by

Robert McCormick Adams and Frank Magre

Introduction

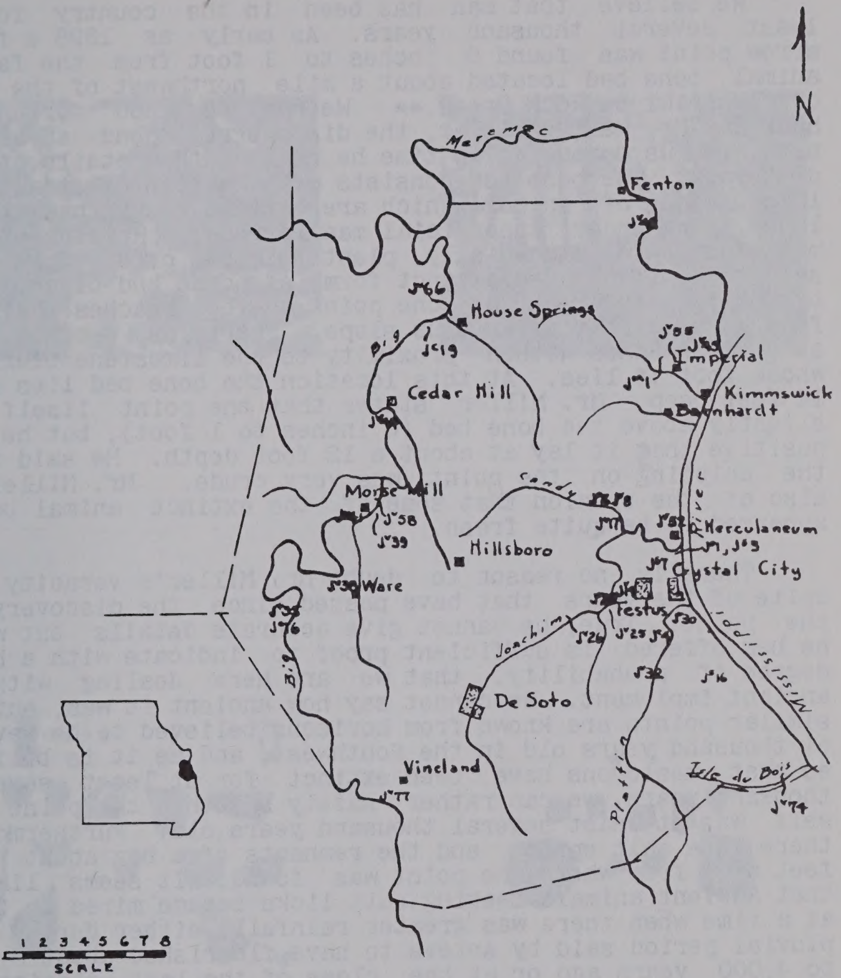
Jefferson County is located just south of St. Louis County and is situated along the Mississippi River. There has been little attempt to analyze the archaeology of this region. The only published report from which adequate information could be obtained was that of D. I. Bushnell who concentrated his investigations mainly in St. Genevieve County just to the south of Jefferson County.*

The purpose of this survey is to obtain leads which will enable us to determine tentatively some of the archaeological problems which ought to be examined on a more intensive scale and to gather together any scientific data which would otherwise be irrevocably lost. Actually, comparatively speaking, the county does not contain many visible archaeological remains, but the survey has shown that there are a number of representative archaeological problems to be solved.

For purposes of scientific clarity we have resorted to the use of the classificatory system devised by archaeologists to differentiate prehistoric cultures in the Mississippi Valley. The reader is referred to the publication of "The Taxonomic Method as an Aid to Archaeological Culture Study" by Dr. W. C. McKern in the April 1939 issue of American Antiquity for a clear account of this system.

Jefferson County consists of a series of comparatively high rolling hills which abut the Mississippi River and extend inland to the western border of the county. These are a northeasterly extension of the Ozarks. Lowland country is present only in the several river valleys which are illustrated on the accompanying map. The archaeological sites are situated both on the rolling hills and in the second or third terraces or river bottoms of the valleys. Probably only a small percentage of the sites existing in the county were found, these being located mainly in plowed fields, but enough information was obtained to build up a respectable number of important leads.

*Bushnell, D. I., "Archaeological Investigations in Saint Genevieve County, Missouri," Proceedings of the United States National Museum, vol. 46, pp. 641-665.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ARCHAEOLOGICAL SURFACE SURVEY
JEFFERSON COUNTY, MISSOURI

Ancient Man

We believe that man has been in the country for at least several thousand years. As early as 1898 a flint arrow point was found 6 inches to 1 foot from the famous animal bone bed located about a mile northwest of the town of Imperial on Rock Creek.** We had the good fortune to have had Mr. Walter Miller, the discoverer, spend an afternoon with us during which time he related the details of the discovery. The bone bed consists of a series of disarticulated bones of animals which are extinct today in a clayey layer lying under superficial mantle rock. Remains of the mastodon were exceedingly plentiful, but other forms are said to have included extinct forms of horse and bison. Not over 2 feet thick at any one point the bed reaches the surface at the foot of a talus slope. The talus becomes deep as it approaches within proximity to the limestone bluff at whose foot it lies. At this location the bone bed lies over 14 feet deep. Mr. Miller states that the point itself lay slightly above the bone bed (6 inches to 1 foot), but he was positive that it lay at about a 12 foot depth. He said that the chipping on the point was very crude. Mr. Miller is also of the opinion that some of the extinct animal bones appeared to be quite fresh.

There is no reason to doubt Mr. Miller's veracity in spite of the years that have passed since the discovery of the point. True, he cannot give accurate details but what he has offered is sufficient proof to indicate with a high degree of probability, that we are here dealing with an ancient implement. We cannot say how ancient it was, but as similar points are known from horizons believed to be several thousand years old in the Southwest, and as it is believed that mastodons have been extinct for at least several thousand years, we can rather safely say that the point itself was at least several thousand years old. Furthermore, there is a salt spring and the remnants of a bog about 300 feet away from where the point was found. It seems likely that ancient animals seeking salt licks became mired in this at a time when there was greater rainfall, either during the pluvial period said by Antevs to have flourished about 3,000 to 4,000 years ago or at the close of the last glaciation 15,000 years ago. At any rate we think that we have a very good possibility of determining the existence of ancient man when scientific excavations are carried on. Fragments of bones of extinct animals appear now near the surface in the side of a fresh cut, and we recently picked up a few of them, at least one belonging to a mastodon.

Another instance of the presence of ancient man in Jefferson County was the discovery of the base of a Folsom point picked up while we were surveying on a hilltop a mile

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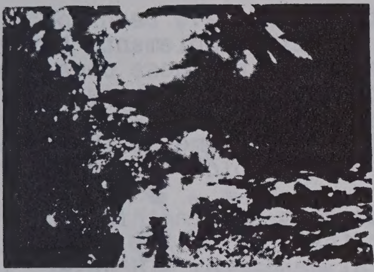
** This point is now on exhibition at the Field Museum in Chicago. Various scientists have described its discovery and interpreted its significance, most notable being the late Dr. Henry Fairfield Osborn.



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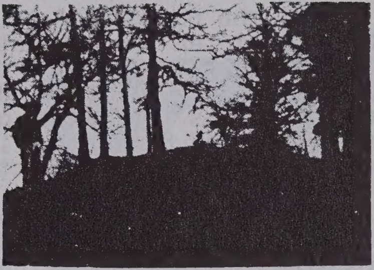

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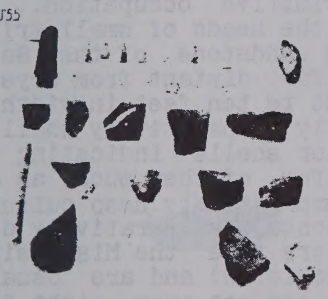

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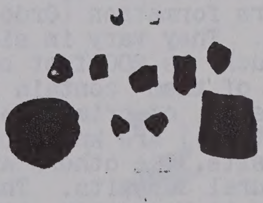

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and a half north of Crystal City (see Fig. 1). There is no way of telling the exact age of this point except to say that it is probably at least several thousand years old, as typical Folsom points are seldom found with cultures believed to have existed during the past two thousand years.

Of the number of village sites that have been found a few contain an exhorbitant amount of flint implements but no pottery. It is certain that a majority of these once contained pottery which has disintegrated. Nevertheless, there are instances where we are almost positive that pottery never existed here. Suffice to state that some of the sites which never contained pottery may be very old.

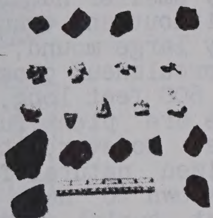
So much for the evidence of ancient man in this county. What we have is sufficient to indicate a bright future in store for scientific archaeological research. However, it must be emphasized that what we say is subject to qualifications through more intensive investigations.

Surface Indications

The principal surface indications of primitive cultures are rock shelters, mounds, cemeteries, village and camp sites, occasional implements left by ancient man during his hunting or war-making expeditions, flint workshops and petroglyphs.

Two types of rock shelters occur in Jefferson County and both contain evidences of primitive occupation. The most common of these are found at the heads of small tributary stream valleys in crossbedded sandstone of the Saint Peters formation (Ordovician) not far distant from Crystal City. They vary in size from eight to ten feet in width to as much as 200 feet but are usually comparatively shallow. Most of them contain flint chips or shells indicating the presence of primitive man, and a few of them such as J^S7 (photo #1) are known to contain comparatively deep cultural deposits. The others are known to contain comparatively deep cultural deposits. The other shelters face the Mississippi River in Kimmswick limestone (Ordovician) and are usually very small, six or eight feet wide and not over eight feet deep. They characteristically have sloping floors. Remains of pottery and flint chips are sometimes found in them. There is a group of four of them just south of Herculaneum. It is believed that none of these were occupied for a very long period of time. Certainly only small groups used them as temporary shelters.

Mounds are not particularly plentiful in Jefferson County, only about 30 of them having been located to date. They are generally composed of dirt gathered from nearby, but a few of them located along the Big River in the western part of the county are of stone covered with dirt. Most of them are rather small conical affairs, being not over 5 feet in height and 60 feet across. Some of these are located on ridges or bluff tops and occur singly or in small groups. At least one of these, J^O19, on Buch Knob just south of Crystal City has a prepared level space around it (photo #2).



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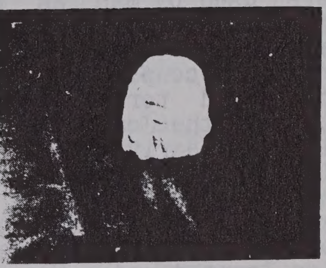

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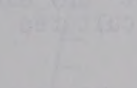

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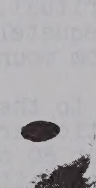
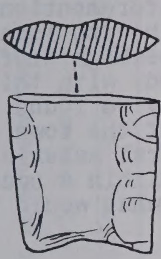


8.

Others are located on the sides of high river terraces. A few are on the low second terraces, just out of reach of high water. Two of these, $J^{O}14$ and 15 on the Big River west of Ware, are oblong in shape and appear to have been utilized natural former riverbottom hummocks or the product of erosion produced by differential solution. Natural cuts in the sides of these mounds showed us definitely that they were used by man as they contained charcoal and pottery sherds. Nearby, however, are many smaller hummocks that have similar cuts in them but are without any trace of having been occupied. There is one very large mound, $J^{O}7$, on a low second terrace just south of Herculaneum close to the mouth of the Joachim. This is over 500 feet long, 200 feet wide and nearly 12 feet high. There are plentiful indications of flint chips on the surface. However, this mound may also prove to have been a utilized natural formation. Many of the mounds discovered are known to have been used for burial purposes, such as $J^{O}16$, but burial grounds were also located under the surface or under slight rises too low to be called mounds.

Reports of burials found from beneath the surface are particularly common. Representative are $J^{C}9$ on the second bottom of the Meramec just as this river drains into the Mississippi and $J^{C}17$ just west of House Springs. Burials in groups and singly and with or without artifacts with them are reported. Some of them were encased in stone vaults, in cists with upright side slabs or without any traces of stonework surrounding the bodies. Flexed, extended or bundle burials have been reported, the extended burials sometimes being accompanied with whole pots deposited as a part of the funeral ritual. As we did not conduct any excavations we are inadequately acquainted with the cultures represented either from mounds or cemeteries.

Next to the most common form of prehistoric evidences of occupation are the surface indications of ancient village sites, over 80 of these having been plotted to date. These are representative but probably are only a small fraction of the number of these primitive cultural manifestations. They are usually found in the second bottoms or on low ridges overlooking streams. Pottery sherds, stone implements, worked shell pieces and charcoal are the main indications of habitation. House depressions and other impressions on the surface due to differential moisture content between the soil covering house remains and the surrounding soil tell us that structures once existed at a few of the sites. However, most of the house structures will be discovered only after very careful scientific excavations are conducted. In size these village indications vary from only 100 feet on a side to some covering many acres in extent. We are of the opinion that the amount of surface materials found is not a final indication of size or extent of these sites and it is quite possible that a stray sherd or flint implement may indicate just as large a site under the ground as more plentiful surface remains. More often than not such sites are not located with mounds in Jefferson County, although there is some evidence indicating that burial grounds are present



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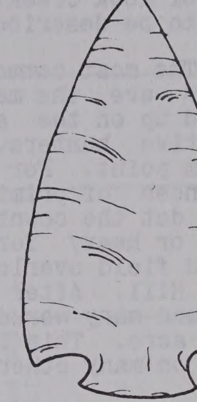

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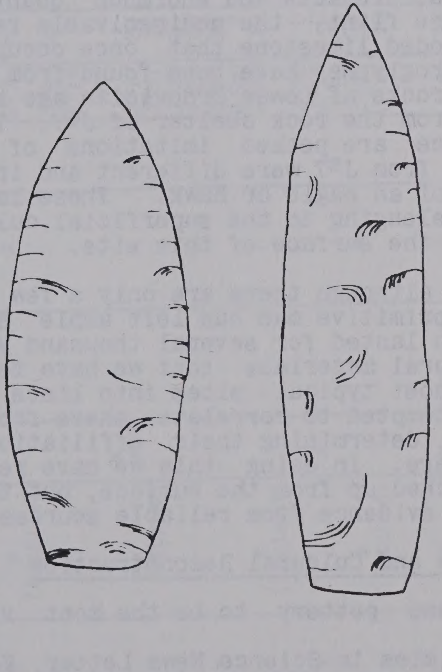

2.

along with many of them. Illustrative of this is J^{V}55 which is located just north of the town of Imperial on the left bank of Rock Creek. Incidentally, most of the material culture to be described below comes from village sites.

The most common form of prehistoric evidences of occupation are the many occasional flint implements usually picked up on the surface. These were probably dropped by primitive hunters. One of these was the aforementioned Folsom point. For a long time we were at loss how to locate evidences of primitive men on the hundreds of high bluffs that dot the county as they are usually covered with thick grass or heavy forest growths, but fortunately we found a plowed field overlooking site J^{V}57 just east of the town of Cedar Hill. After three of us looked for cultural materials we found many worked pieces and crude knives within a space of an acre. This is probably an indication of what would be found on many other hilltops.

Other miscellaneous indications of the presence of primitive man are flint workshops and petroglyphs. We have found two flint workshops, J^{V}78 located at the mouth of the Isle Du Bois and J^{V}52 on an intermittent stream near Riverside, a mile north of Herculaneum. The workshops contained flint implements, rejects and enormous quantities of flint spalls and loose flint, the undissolvable residual inclusions of the eroded limestone that once occupied this small tributary. Petroglyphs have been found from the surface of sandy dolomite rocks of Lower Ordovician age south of Festus near J^{V}31 and from the rock shelter of J^{S}7. The petroglyphs from the surface are pecked imitations of hand and foot prints.* Those from J^{S}7 were different and include an effigy in the form of an eagle or hawk. These latter may prove to be a trait belonging to the superficial cultural manifestation found on the surface of this site.

Therefore, although there are only a few mounds in Jefferson County primitive man has left ample evidence of his occupation which lasted for several thousand years. We have sorted the cultural materials that we have found on what we think are the most typical sites into lists of traits and then we have attempted to correlate these from site to site with a view to determining their affiliations with known cultures elsewhere. In doing this we have relied mainly on what we have picked up from the surface, but there are a few traits based on evidence from reliable sources.

Trait Analyses** and Cultural Reconstruction

We have found pottery to be the most valuable single

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* See short articles in Science News Letter, Vol. 34, No.18, Oct. 29, 1938, pp. 278-9 and Vol. 35, No. 13, April 1, 1939, p. 201.

** The system of marking prehistoric sites is identical to the system used by the University of Chicago. See p. 24 of Rediscovering Illinois by Cole and Deuel.

Chart of Pottery Traits

Shell and Hole Tempered

Site	No.	cord marked	decoration	slip	polished	more than one shape
$J^{V}4$	13	x				
$J^{S}7$	24	x	x (textile)		x	x
$J^{V}8$	0					
$J^{V}14$	0					
$J^{V}17$	0					
$J^{V}21$	7			x		
$J^{V}25$	40		x * (etched)	x		x
$J^{V}26$	0					
$J^{V}29$	0					
$J^{V}30$	9	x				
$J^{V}32$	0					
$J^{V}35$	54		x (incised)		x	x
$J^{O}16$	1					
$J^{V}39$	10	x		x		
$J^{V}41$	18	x				
$J^{V}44$	24		x (etched)			x
$J^{V}45$	0					
$J^{V}46$	35	x				
$J^{V}49$	43	x	x (textile)	x		x
$J^{V}54$	12			x		
$J^{V}55$	283	x	x (textile and incised)	x	x	x (includes effigy)
$J^{V}58$	1					
$J^{V}66$	24	x			x	x
$J^{C}19$	3					

* incised after firing

Chart of Pottery Traits

Grit Tempered

Site	No.	cord marked	decoration	slip	polished	more than one shape
$J^{V}4$	5	x				
$J^{S}7$	50	x	x (textile)			
$J^{V}8$	46	x				
$J^{V}14$	9		x (brush marked)	x (interior)		
$J^{V}17$	34	x				
$J^{V}21$	10	x				
$J^{V}25$	20	x				
$J^{V}26$	100	x				
$J^{V}29$	14	x				x
$J^{V}30$	7	x				
$J^{V}32$	19	x		x (exterior)		
$J^{V}35$	0					
$J^{O}16$	0					
$J^{V}39$	38	x				
$J^{V}41$	34	x			x	
$J^{V}44$	10		x (reed and incised)			
$J^{V}45$	12	x				
$J^{V}46$	1					
$J^{V}49$	14	x				
$J^{V}54$	8					
$J^{V}55$	7	x				
$J^{V}58$	29	x				
$J^{V}66$	24	x				
$J^{C}19$	0					

medium of cultural description. Each sherd has a multiple trait index and is a sensitive indication of culture. On the other hand flint implements have not proved to be a good cultural index because of uniformity from site to site. There are certain exceptions such as the Folsom point (fig. 1), the flint implements from J^{V}5 which include leaf-shaped blades exhibiting the pressure flaking so characteristic of the Adena manifestation from Ohio and the Red Ochre of Illinois (fig. 2), and the finely chipped flint points with long feather-edge flake scars so diagnostic of the Hopewell of Illinois from site no. J^{V}90 located near House Springs (photo #3).

Tables I and II contain brief results of our ceramic investigations. With one or two exceptions only those sites that contained a reasonable number of sherds were included. An examination will at once show a division into three groups of sites, those containing grit tempered sherds, those containing shell (or hole) tempered sherds, and those containing both shell and grit tempered sherds. The latter sites indicate the probable presence of more than one component while those with grit tempered sherds probably indicate sites of the Woodland Pattern and those having shell tempered pottery indicate the Mississippi Pattern. The sherds of the latter also exhibit other characteristics usually found with Mississippi pottery. Six of the sites are Woodland, four are mainly Woodland, four are almost preponderantly Mississippi, two are mainly Mississippi and the remainder contain both Woodland and Mississippi. By and large the results of Table III strengthen the above conclusions although there is a general poverty of artifacts other than arrowheads, scrapers and drills. Photo #3 shows typical cultural materials from J^{V}55 and illustrates the objects of Mississippi sites. Photo #4 from J^{V}26 illustrates cultural materials typical of Woodland sites, and photo #5 from J^{V}26 illustrates cultural materials typical of Woodland sites, and photo #5 from J^{V}25 illustrates the cultural materials from sites having two components: Woodland and Mississippi.

In addition to the results of the surface survey three important objects were photographed from existing collections. One is a sandstone pipe (photo #6) which may have been used as an arrowshaft polisher from J^{V}38 which probably also contains Woodland cultural materials. Another is a large 8.5 inch flint spade which was found together with possible Mississippi cultural materials from J^{V}11 (photo #7). The third is a tetrapod pot (photo #8) with a real surface slip reported to have come from J^{O}19 (see also photo #2) and which certainly belongs to the Mississippi Pattern. Objects of the Woodland Pattern not recorded in the table but listed from other sites are grooved axes and grooved plummets or net sinkers, leaf-shaped spearpoints or knives, pitted hammerstones and rounded igneous pebbles with single deep narrow holes which may have been used for drill bases, and concave-convex triangular projectile points.

On the basis of our surface survey it has also been possible to indicate tentatively the probability of the

Chart of Artifact Traits

(includes only sites containing pottery and listed in Tables I and II)

Site	expanding base projectile point	contracting base projectile point	equilateral triangle projectile point	over 2.5 inches	under 2.5 inches	drill	chipped celt	polished celt	grooved ax	grinding stones	bone awls	bone flakes	beads	biconcave discoidals
$J^{V}4$	x	x	x		x	x				x				
$J^{S}7$	x	x			x						x	x		
$J^{V}8$		x			x									
$J^{V}14$		x			x									
$J^{V}17$		x												
$J^{V}21$		x			x									
$J^{V}25$	x	x							x	x				
$J^{V}26$	x							x						
$J^{V}29$	x	x		x	x	x								
$J^{V}30$	x	x		x	x	x		x						
$J^{V}32$		x			x									
$J^{V}35$			x		x									
$J^{O}16$		x			x									
$J^{V}39$		x			x	x								
$J^{V}41$		x			x		x							
$J^{V}44$		x	x		x									
$J^{V}45$														
$J^{V}46$		x												
$J^{V}49$														
$J^{V}55$	x	x	x	x	x			x					x	x
$J^{V}58$		x				x								
$J^{V}66$		x		x	x									
$J^{C}19$		x												

presence of the following phases and aspects: Red Ochre phase of Woodland Pattern (flint leaf-shaped knives), Monks Mound or Gordon-Fewkes aspects of the Middle Mississippi phase (oval hoes or spades tapering slightly at pole, effigy flanges, red slip ware, polished water bottles, carinated bowls, textile marked salt pans, pottery with extended burials, and multiple notched arrows), East Arkansas aspect of the Middle Mississippi phase (tetrapod pot with slip), the Hopewell phase of an unknown pattern (Hopewellian flint points) and the Tampico phase (concave-convex isosceles triangular projectile points and grit tempered pottery with twisted cord decoration near rim.)

J^V49 and J^V55, both located near salt springs contain an exhorbitant number of salt pan fragments. These are out of all proportion to the needs of the people who lived in these prehistoric communities. The question arises, were these sites centers of trade for the dissemination of salt? Another alternative suggestion is that salt was used as a preservative for meat. Doubtless we will know more of this fascinating problem as soon as careful scientific excavations are accomplished.

Conclusions

The results of the surface survey of Jefferson County have revealed the probable presence of ancient man living in this vicinity for thousands of years. The analysis of surface materials from over 130 sites yields certain leads by which we are able to give a series of tentative cultural affiliations with several known aspects and foci of both the Mississippi and Woodland Patterns found in surrounding states. We cannot, of course, give anything more than important leads, but we feel that these investigations show that what may have once been considered a poor county for archaeological investigation because of the general lack of mounds, is actually extremely important because of prolific village sites. These leads should form a background for more intensive archaeological investigations.

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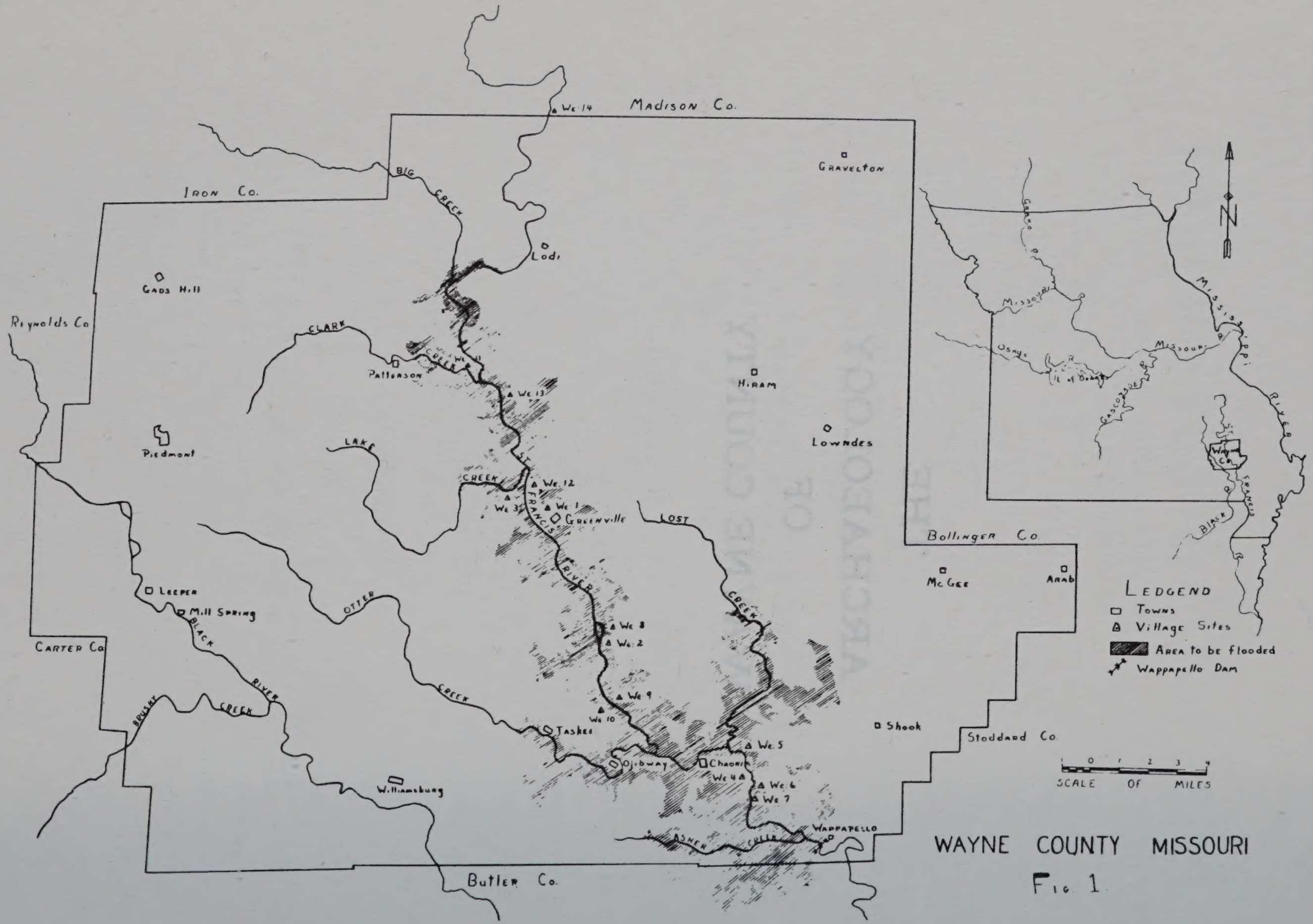
THE ARCHAEOLOGY OF WAYNE COUNTY

BY

Brewton Berry
J. E. Wrench
Carl Chapman

THE ARCHAEOLOGY OF WAYNE COUNTY


Madison Co.
We. 14
Iron Co.
Big Creek
Lodi
Gravelton
Gads Hill
Reynolds Co
Clark Creek
Patterson
We. 11
We. 13
Hiram
Lowndes
Piedmont
Lake Creek
St. Francis River
We. 12
We. 1
We. 3
Greenville
Lost Creek
Bollinger Co.
McGee
Arab
Leeper
Mill Spring
Otter Creek
We. 8
We. 2
Carter Co
Black River
Brushy Creek
We. 9
We. 10
Taskee
Shook
Stoddard Co.
We. 5
Ojibway
Chaonia
We. 4
We. 6
We. 7
Williamsburg
Wappapello
Asher Creek
Butler Co.
Grand R.
Missouri R.
Osage R.
L. of Ozarks
Gasconade R.
Missouri R.
Mississippi River
Wayne Co.
St. Francis
Black R.
N
Ledgend
□ Towns
△ Village Sites
▨ Area to be flooded
Wappapello Dam
0 1 2 3 4
Scale of Miles

WAYNE COUNTY MISSOURI

Fig. 1

The Missouri Archaeologist

The Archaeology of Wayne County

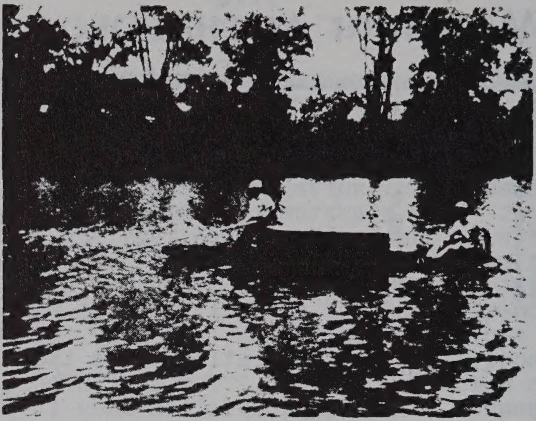
The archaeological survey of Missouri began in 1932, when for the first time a systematic attempt was made to locate and map the numerous Indian mounds, village sites, and other prehistoric remains which had long attracted the interest of archaeologists and amateurs. No money was available for this survey, however; and for several years it was carried forward on a very limited scale. In 1937 the University of Missouri received an appropriation from the legislature amounting to about $500 a year, for the purpose of archaeological research. This appropriation made it possible to equip and send into the field a small research party in 1938.

There were many important archaeological problems that called for investigation, but before a decision was reached word was received that plans were under way for the construction of a flood control dam in Wayne County. This dam was to be built near Wappapello, Missouri, on the St. Francis River, and upon its completion most of the Indian remains in Wayne County would be destroyed or covered by the waters of the lake. Construction of the Bagnell Dam, on the Osage River, had resulted in the loss of innumerable important remains. It was decided, therefore, that a survey of Wayne County seemed to be the most pressing problem of the moment.

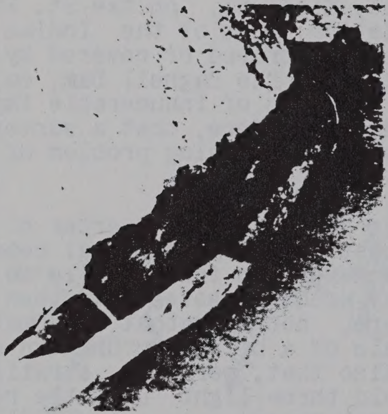
Wayne County lies in the southeastern quarter of the state. To the east and southeast abundant cultural remains of the Middle Mississippi type have been found, while to the west, in the Ozark region, many Woodland sites have been reported. It was hoped, therefore, not only that information on the archaeological materials of a hitherto unknown section would be obtained, but also that, perhaps, stratified sites could be found that would throw light upon the relative chronology of these cultural types.

The methods employed in the survey were similar to those used in Boone County and elsewhere, and have been described in The Missouri Archaeologist, Vol. 4, No. 3, September, 1938. The only difference was in the means of transportation, a boat being used instead of car and truck. The boat, which came to be known locally as "the hearse," was placed in the river at the northern boundary of the county, and taken downstream a few miles each day, to the southern boundary at Wappapello. It was then shipped to the Black River, from which the southwestern corner of the county was surveyed. Other parts of the county were reached by car.

The field party in the summer of 1938 consisted of Carl Chapman and James Lowe, students at the University. They were joined by Wrench for the month of August. Berry spent several week ends in the field. In August, 1939, a party consisting of Wrench, Chapman, and John Mack returned to the county and sunk a few test pits in several of the more promising sites.



"The Hearse"



Above: Collection of Kenneth Barrow, Piedmont, Mo.
Left: Indian dugout canoe found in Keener Cave, Wayne County.

Plate I

Description of the County

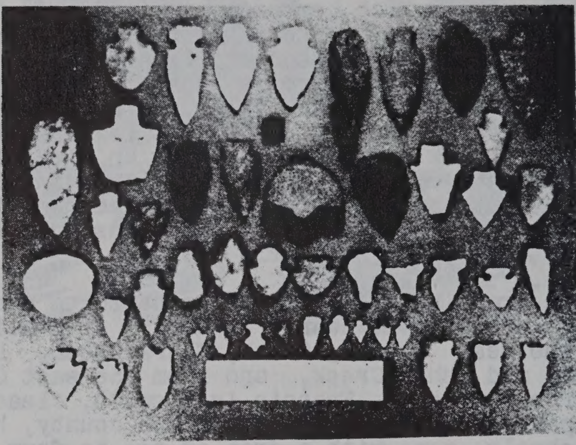
Wayne County, which embraces an area of 745 square miles, lies in the southeastern part of Missouri. It is bounded on the north by Madison and Iron counties, and on the south by Butler. The surface is generally broken and highly diversified, having rocky hills and ridges alternating with rich valleys. The northwest part is mountainous, the highest point, Clark Mountain, reaching an elevation of 1452 feet. The height of the hills gradually diminishes from northwest to southeast, ending abruptly at the Mingo Swamp, which forms one edge of the southeast Missouri lowland region.

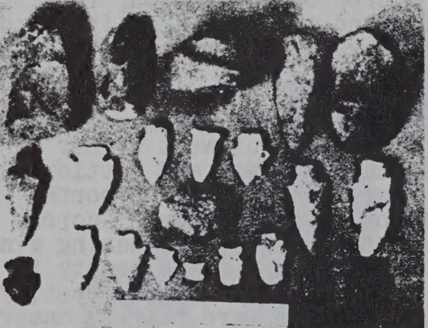
The St. Francis River flows from north to south through the county, dividing it nearly in half. Its main tributaries from the west are Big Creek, Clark Creek, Lake Creek, Otter Creek, and Asher Creek, and from the east Cedar Creek and Lost Creek. The St. Francis is a swift, clear stream in the upper part of its course through the county, having many rapids or shoals, some with a drop of two to four feet. As the stream nears Wappapello and the lowlands it becomes sluggish and dingy. The river valley is wide and fertile, and is subject to frequent floods.

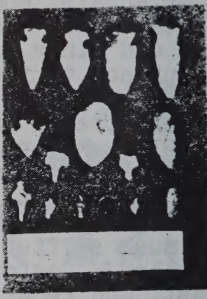
Other streams in the county are Black River and Castor River. Black River flows across the southwest corner of the county. It has two main tributaries, Big and Little Brushy Creek from the west, and McKenzie Creek from the north. It is a swift, clear stream throughout its course across the county, much swifter than the St. Francis, and having a narrower valley. Castor River barely touches the county in the northeast, and receives two tributaries from the west, Turkey Creek and Bear Creek. Springs are fairly numerous throughout the county.

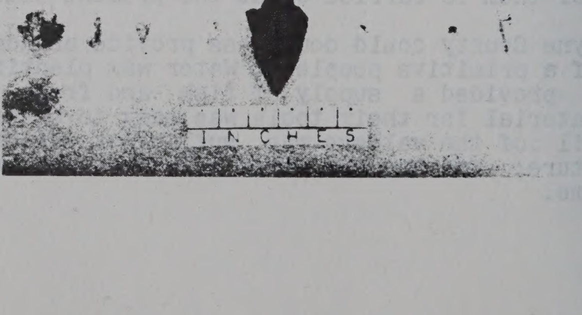
Red and gray granite and varicolored rhyolite porphyry of Pre-Cambrian age occur abundantly in the northern and western parts of the county. These granite and porphyry outcrops form large hills or domes which, usually, are sparsely covered with scrub vegetation. Other rock formations are of dolomite, limestone, sandstone, quartzite, and chert, ranging from Cambrian to Ordovician in age. Hematite, limonite and specularite ores are abundant, but no extensive mining of them is carried on at the present time.

Wayne County could doubtless provide abundantly for the needs of a primitive people. Water was plentiful, and the streams provided a supply of fish and fresh water clams. Stone material for their tools was easy to obtain; the fertile soil of the valleys was sufficient for their limited agriculture; and the forested hills no doubt were teeming with game.








INCHES

The Surface Survey

Our first problem was that of locating the Indian remains in the county - the village sites, burial grounds, quarries, mounds, and caves that had been inhabited. On these sites we hoped to find some evidences of the customs, arts and industries of the Indians. We planned, also, to photograph, sketch and study the collections of local amateurs. Thus we hoped to learn something of the civilizations that had formerly flourished in the county, their relative dates, and their affiliations with the civilizations of other parts of the state. To accomplish these ends it was necessary to cover the areas along the water courses on foot, calling at all houses and asking for information, and interviewing every collector of relics and every local historian whose whereabouts could be determined. A boat was chosen as the most satisfactory and economical means of transportation for reaching those sections occupied by primitive man. We floated a few miles downstream each day, made camp, hiked over several square miles of the surrounding area, and then moved on. Later on we used a car to reach promising regions on the smaller water courses.

The total number of Indian sites located was 546. This included 406 camp sites, 4 inhabited caves, 1 rock shelter, 3 rock cairns or graves, and 132 mound sites containing a total of 1775 mounds.

By far the greatest number of sites were camp or village sites. These ranged in size from one to ten acres. The larger sites were in the St. Francis and Black River valleys. These were nearly always rich in debris and were perhaps the more permanent places of abode. Those along the smaller streams had perhaps been the temporary camps of small hunting parties.

Stone artifacts found on the surface included full grooved axes of gray granite and rhyolite prophyry, granite celts, pitted hammerstones, mortars, roller pestles, discoidals or discoidal-like stones, crudely chipped points and knives, and very small projectile points, some indicating crude attempts at secondary chipping along the edges. These are illustrated in the accompanying photographs and drawings. The stone work illustrated on pp. 10, 37, 38, 39, 40 is representative of the material found on those sites where there was no pottery. An interesting type of artifact discovered is the "spade" made of gray granite or rhyolite porphyry. One of these is illustrated in the photograph of the collection of Mr. Kenneth Barrow (Pl. I), who reports that such "spades" are of frequent occurrence throughout the county.

A dug-out canoe was discovered in Keener's Cave a few years ago, and was brought to the surface of the water and placed on public exhibition. It was found under twenty feet of water lying among logs and debris that had washed into the cave. The boat is approximately thirty feet in length and not much more than eighteen inches wide at its widest point. The canoe seems to be authentic. We have no information as to other cultural material from the cave, but reports are that small flint projectile points were found at the time the cave was cleared out.

Pottery. Hundreds of potsherds were gathered in the course of the survey. These sherds show a great variety of types, and their identification and classification has been no easy task. Tempering material includes shell, grit, sand crushed limestone, and combinations of these. Many of them have weathered so completely that the tempering material has disappeared, resulting in a porous appearance, which we have designated "hole tempered." Decorations included, for the most part, cord and brush markings, although there were occasional instances of other types of decorations, and most of the sherds were undecorated. Colors varied from gray to buff to reddish brown. We found no evidence at all of stratification in these pottery types. On those sites where more than one of these types occurred, we found the sherds occurring throughout the depth of the excavation. The relative frequencies of the various types, however, did differ from site to site, which fact is brought out in the reports on the excavations.

It has seemed possible to classify the sherds from Wayne County into five wares, as follows:

Ware No. I. Color, gray. Tempering material, sand. Decorations, cord and brush markings, except one punctate design from We:3, and one net design from We:4. This ware is fairly hard, and in thickness varies from 5 to 8 mm. Rims are usually vertical, although one rim was slightly flaring (See Plates X and XI, pp. 32, 34).

Ware II. Tempering, grit, sand, and hole. Color, buff to reddish brown or dark brown. Decorations, usually none, but sometimes cord or brush markings. Texture soft, crumbling easily between the fingers. Surface, rough or roughly smoothed. In thickness 3-14 mm. Rims of many types (see p. 27).

Ware III. Tempering, shell. Colors, gray, buff, reddish brown. Surface, fairly smooth, or roughly smoothed. Decorations very rare on this ware (except at We:14), although some cord markings occur. Rims, vertical. In texture this ware is soft, crumbling readily between fingers.

Ware IV. Tempering, shell and limestone. Rims vertical or slightly flaring. Decorations, cord and brush markings. Colors, gray, buff, red, and brown. Fairly hard. This ware found only at We:14 (See Plate XIII, p. 36).

Ware V. This ware is identical to Ware IV, except that its tempering material is crushed limestone. In color, texture, hardness, and decorations it is similar to Ware IV. Found only at We:14.

Mounds. As reported earlier in this bulletin, our survey located a total of 132 mound sites, on which there were 1775 mounds. Such numbers are not unusual for this section of Missouri; in the neighboring county of Stoddard 2608 mounds of similar proportions have been located.

The Wayne County mounds are low, rounded elevations, circular in shape. They rarely exceed five feet in height or fifty feet in diameter, and most commonly are but two or three feet in height and thirty to forty feet in diameter. They occur in groups of three to groups a hundred or more. They seem to be found most frequently in small stream valleys or near springs. They are almost invariably surrounded by wet, swampy ground, called "cray fish land" by the native people. We found some of these mound groups on high, dry ground, but we learned, on inquiry, that even this ground had been swampy before the region was opened to cultivation.

Mounds of this type are numerous throughout southern Missouri, northern Arkansas, and northeastern Oklahoma. There has been a great deal of discussion as to their origin and nature. Houck (1), who conducted an extensive piece of research, and located tens of thousands of these mounds, was convinced that they were constructed by the Indians, and that they gave evidence of the existence of large and prosperous populations in antiquity. Shetrone (2) has referred to them as "garden mounds," and Fowke (3) suggests the possibility of their being the remains of the timbered, earth-covered lodges of an earlier people. Still others have suggested that they were erected as stands for hunters, or as foundations for houses, or as burial mounds. On the other hand, there are many who insist that these are natural, and not artificial, mounds. Their origin has been attributed, by these skeptics, to erosion, earthquake, gas vents, rabbits, beavers, gophers, prairie dogs, foxes, ants, badgers, chipmunks, ground hogs, and the wind.

At first we were inclined to believe that the mounds were artificial. In most respects they resemble the mounds along the Missouri River, in which we had conducted many excavations, and which we had invariably found to have been constructed for burial purposes. (See The Missouri Archaeologist, Vol. 4, No. 1; Vol. 4, No. 3.)

Inspection of these Wayne County mounds, however, has made us alter our opinion. We are still convinced that the large mounds of southeastern Missouri are man-made, and we are positive that the numerous mounds along the bluffs of

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(1) Louis Houck, A History of Missouri, Vol. I.
(2) H. C. Shetrone, The Mound-Builders, pp. 357f.
(3) Gerard Fowke, Archaeological Investigations, BAE Bull. 76, pp. 161-173.

Cf., also, J. B. Thoburn, "The Origin of the 'Natural' Mounds of Oklahoma and Adjacent States," in the Chronicles of Oklahoma, Vol. 15, No. 3, Sept., 1937.

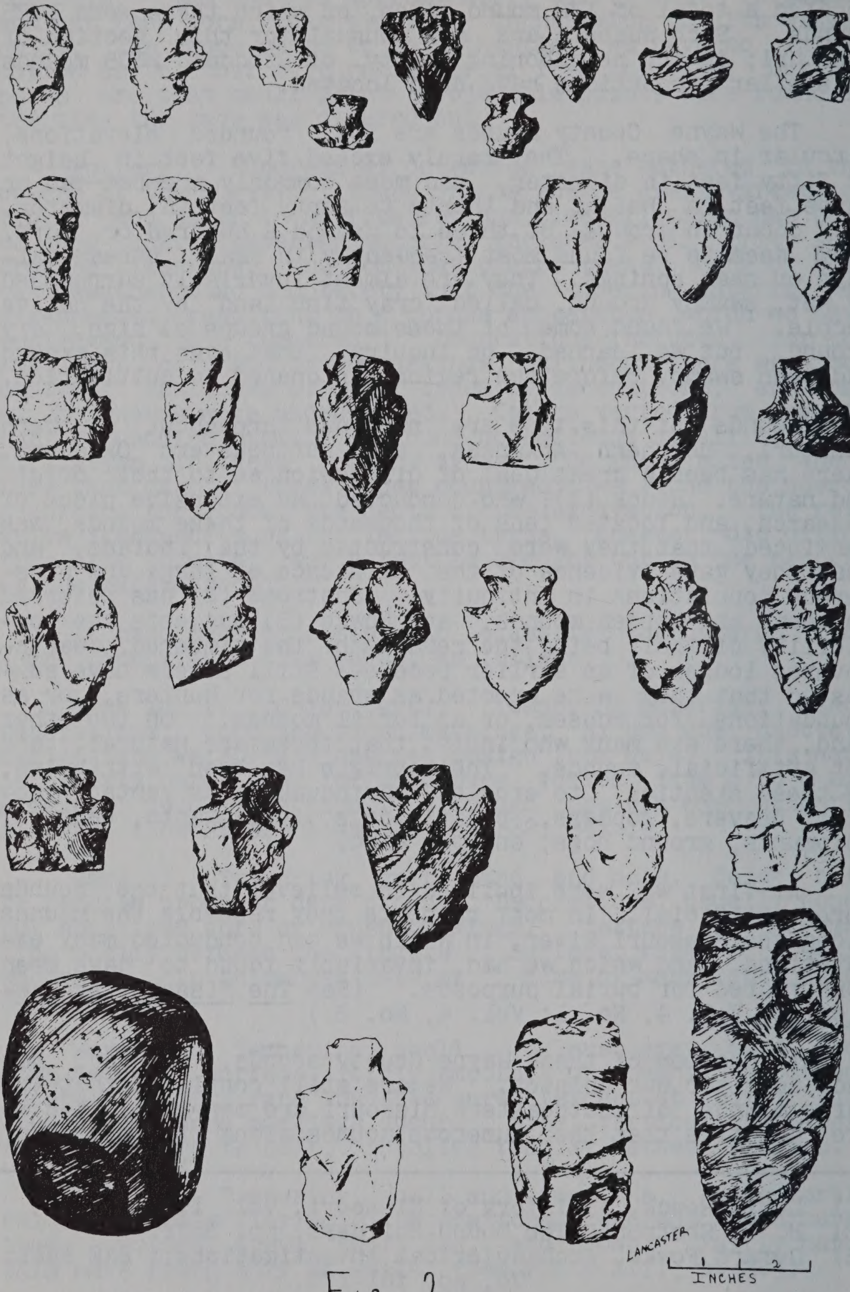

LANCASTER
1
2
INCHES

Fig. 2
SURFACE COLLECTION-We:15

the Missouri River and its tributaries are the burial places of still another prehistoric people. But the mounds of Wayne County, we are convinced, were not the products of human hands. We suspect, also, that the thousands of mounds which have been reported for southern and south-central Missouri, the region of the Ozarks, will also prove to be natural in their origin.

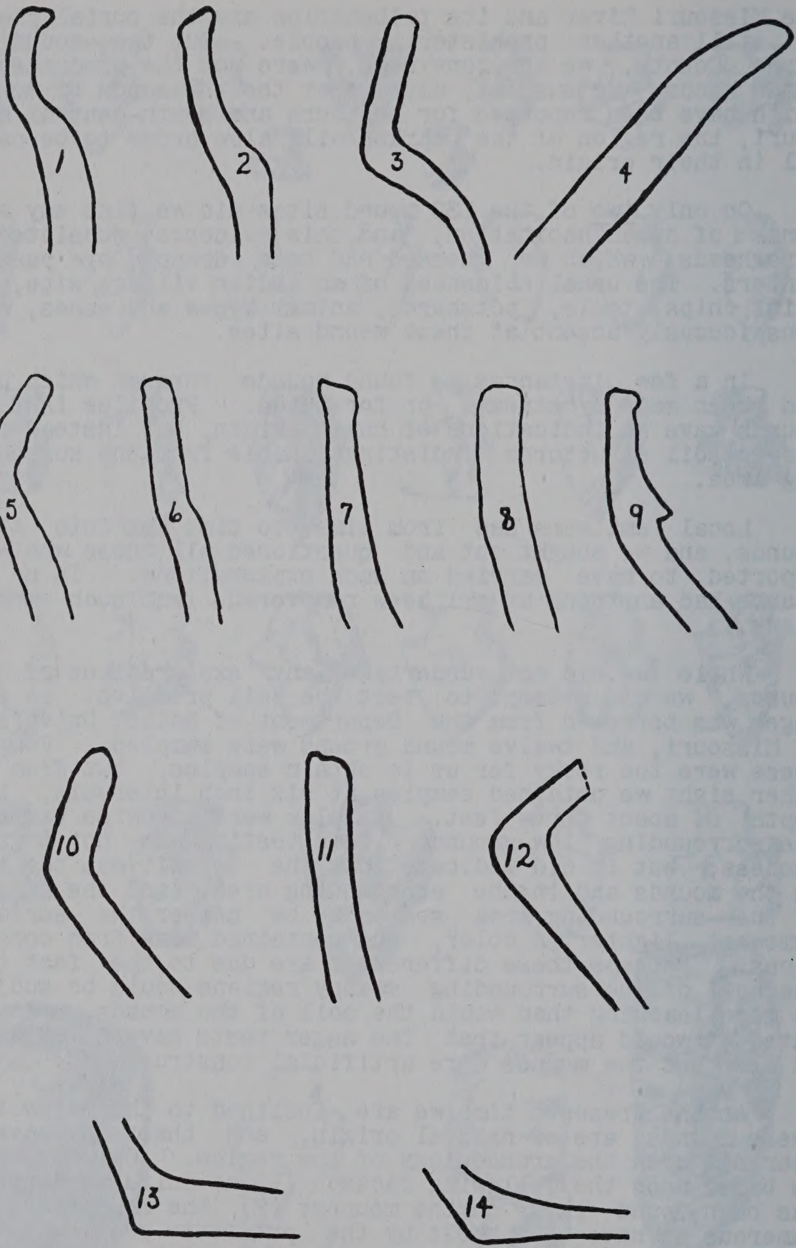
On only two of the 132 mound sites did we find any evidence of human habitation, and this evidence consisted of arrowheads, which we guessed had been dropped by passing hunters. The usual evidences of an Indian village site, the flint chips, tools, potsherds, animal bones and ashes, were conspicuously absent at these mound sites.

In a few instances we found mounds through which cuts had been made by streams or for roads. Profiles in these mounds gave no indications of human origin, but instead displayed soil structures indistinguishable from the surrounding area.

Local amateurs had from time to time dug into these mounds, and we sought out and questioned all those who were reported to have carried on such explorations. In no instance had anything at all been recovered from such excavations.

While we did not undertake any explorations of the mounds, we did attempt to test the soil profiles. A soil auger was borrowed from the Department of Soils, University of Missouri, and twelve mound groups were sampled. Four of these were too rocky for us to obtain samples, but from the other eight we obtained samples at six inch intervals, to a depth of about three feet. Samples were likewise taken in the surrounding low ground. This testing was not a great success; but it did indicate that the topsoil was the same in the mounds and in the surrounding area, and the subsoil of the surrounding area seemed to be nearer the surface, somewhat lighter in color, and contained more iron concretions. Perhaps these differences are due to the fact that the soil of the surrounding swampy regions would be subject to more leaching than would the soil of the mounds. At any rate, it would appear that the auger tests gave no evidence at all that the mounds were artificial constructions.

At the present time we are inclined to the view that these mounds are of natural origin, and that they have no bearing upon the archaeology of the region. Our reasoning is based upon the following facts: (1) no cultural material has been found in or on the mounds; (2) the mounds are too numerous to have been built by the primitive people who inhabited Missouri; (3) the mounds are located at some distance from the centers of Indian occupation; (4) they are found in swampy land that was hardly suited for man's purposes; and (5) the soil profiles of the mounds and of the surrounding areas are so nearly alike that the probability is that they were both formed at approximately the same time.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14

FIG 3 RIMS & BASES

EXCAVATIONS

No extensive or thorough excavations were attempted as the party was small, the funds limited, and the time short. The plan was to supplement the surface survey by sinking test pits and short trenches at several of the more promising sites in hopes of gaining a more complete picture of the culture than could be obtained merely by surface collections. Three sites were thus tested in 1938, and in August, 1939, a small party returned to test eleven other sites.

We:1

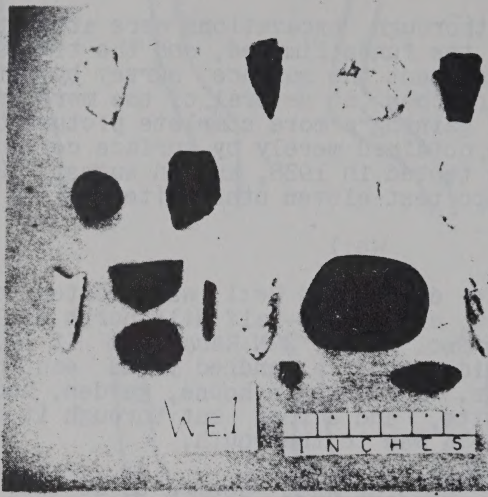
The village site designated We:1 was located on the land of Mr. Williamson, about one-half mile north of Greenville, SW¼ of the SW¼ Sec. 12 Tp. 28N Range 5W. It lay on a gently sloping hillside about a hundred yards east of the St. Francis River. Mr. Williamson's house, garden, and barn covered much of the site, and a road cut through it on the west side. A corn field was to the south.

We selected for testing what seemed to be the least disturbed part of the site, beginning with a five-foot square, which was extended into a trench twenty feet long, five feet wide, and three feet deep. The squares were numbered 0R1 to 15R1, from south to north. We subsequently learned that many years before a barn had stood on the site where we were excavating, and this fact doubtless accounts for some of the surprising features encountered.

Special features found were a storage pit, a fireplace, and fragmentary burials. The storage pit was found at the southwest corner of the excavation. It was approximately eighteen inches in diameter and ranged from three to fifteen inches beneath the surface. The pit had been filled with charred corncobs, seeds, and nut shells. Over the top of the pit a number of rocks had been scattered. The fireplace consisted of a shallow, circular, burned-clay basin in which bits of charcoal could still be seen. It was about a foot in diameter, and was eighteen inches beneath the surface, near the center of square 5R1. Several rocks lay at the north edge of the basin. Fragments of a skull and two bones from the pelvis of a child lay southwest of the fireplace. The upper part of an adult skull was to the west, and a long bone northwest of the fireplace. In the northeast corner of square 15R1 were the skull, pelvis, and leg bones of an adult, lying on several small stones. All the skeletal material was found at depths of twenty to twenty-four inches beneath the surface.

Cultural Material

Two trade articles were found, a small copper pin and a clay pipestem. These might indicate a late date for the site. However, the clay pipestem could be disregarded, inasmuch as it was found only five inches beneath the surface. Square nails, no doubt from the old barn, were found to a depth of twelve inches. The copper pin cannot be so easily


W.E.1
INCHES

dismissed. It was found sticking into one of the charred corncobs in the storage pit, at a depth of 12 inches.

Chipped stone. Projectile points of various shapes and sizes occurred. One was 3/4 in. in length, while others were 1½ - 3 in. These were made of rhyolite porphyry, flint of various colors, and some quartzite. Chipping on most pieces was primary, with large flakes; but on some pieces there was fine secondary chipping and serrated edges. One point had beveled edges. All were bi-convex in cross section except one, which was concavo-convex. Other chipped stone included two broken drill points, two reworked projectile point scrapers, one ovate piece, and other very crude pieces that were possibly knives, scrapers and blanks.

Bone. There was one split bone awl, and one fish rib which was possibly used as an awl.

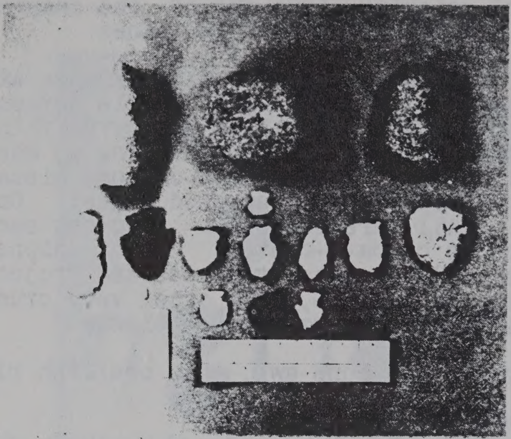
Ground and pecked stone. Although we found no axes, the owner of the property and one reliable local collector reported having found several full-grooved axes on the site. We found eleven pieces that had probably served as hammerstones, pecking stones, grinders and polishers. Some were pitted and some ground to a high polish. Material included granite, porphyry, sandstone, and quartzite. There was, also, one small piece of sandstone, bi-concave in cross section, which bore some resemblance to a discoidal (Plate III, Row 2).

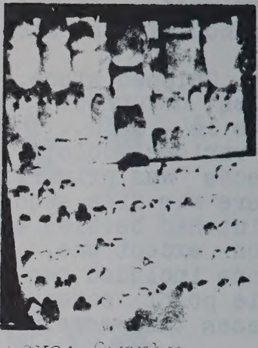
Pottery. A small amount of pottery was found, three sherds of fair size and fifteen very small. These were all of Wares 2 and 3, except one small sherd, less than a square inch in size, representing Ware 1. This latter was sand tempered, gray, cord marked, and fairly hard. The three large sherds and five of the smaller ones were shell tempered (Ware 3), and ten of the smaller ones were grit tempered (Ware 2). Two of these small sherds had brush marks as decorations, but all others were undecorated. In color they were brown or reddish brown. Surfaces were rough or roughly smoothed. In thickness they were 5-10 mm. Only two rimsherds were found, and they were probably of the straight or vertical type, but were too small to base inferences upon. All sherds, except the single one of Ware 1, were of soft texture, crumbling very easily.

There was no indication of stratification in the distribution of these three wares.

We:2

The camp site designated We:2 was on the west slope of an isolated ridge, about 125 yards from the St. Francis River. It was on the James W. Owenby property. NW¼ NE¼ Sec. 4 Tp. 27N R 6W. Mr. Owenby's house and garden covered the main part of the site.





Above: Owenby collection from Je:2

Below: Burial, Je:3

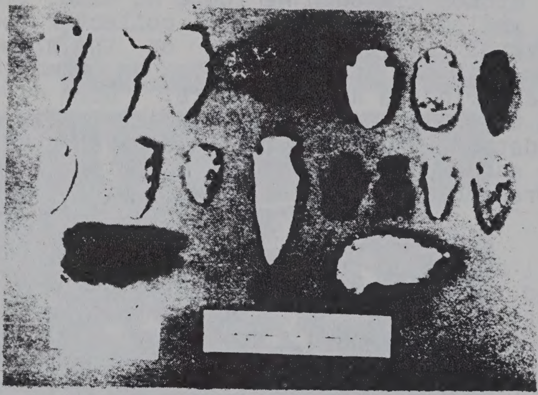


Plate IV

A test pit five feet square was staked out in the garden west of the house and was sunk to a depth of 27 inches, which was deeper than the village site debris extended.

A burial consisting almost entirely of leg bones was discovered at a depth of 17 - 22 inches. These bones were broken, deteriorated, and had been gnawed upon by rodents. The bones were lying in an east-west position. The femora lay across the tibiae, suggesting that the burial may have been semi-flexed.

The chipped flint was similar to that of We:1, except that workmanship seems cruder, there being no secondary chipping, and no serrated edges. Of the ground stone one piece appears to be a celt, with a slight groove added. Mr. Owenby's collection from this site contains full-grooved axes, pitted hammerstones, and crude projectile points. One small piece of pottery was found, being dark brown in color, grit tempered, and cord roughened. (Ware 2.)

We:3

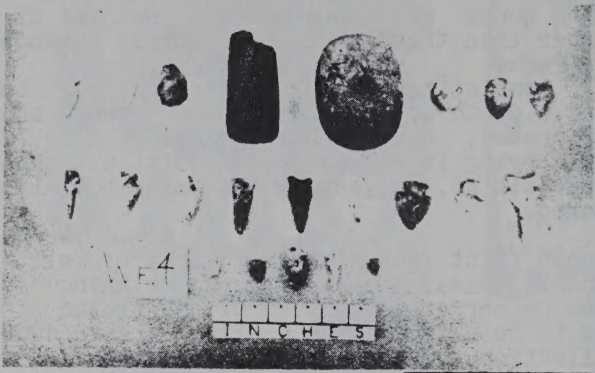
The camp site designated We:3 was located on Mr. F. W. Carlton's land, NW¼ NW¼ Sec. 11 Tp. 28 N R 5 W. It was just south of Lake Creek, on a hillside overlooking a spring. A road had been cut through the site from east to west.

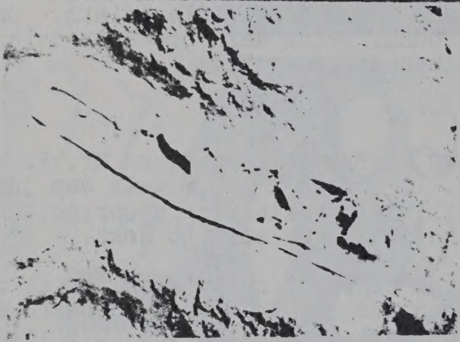
In order to determine the depth of cultural material on the site, we cut a profile on the south side of the road. We encountered here a human skull, and when the overlying soil was cleared away a well articulated adult skeleton was exposed (See Plate IV). It was a flexed burial; knees were drawn up to the chest, and tibiae and fibulae were lying against the femora. The foot bones rested on the pelvis. The head was to the northwest. The entire skeleton occupied a space 18 in. x 31 in., and was 30 inches beneath the surface. The skull rested on two small rocks and the entire burial was covered with small rocks. No artifacts were found with the burial but several pieces of charcoal were under the right femur and a mussel shell was found beneath the pelvis.

Two five-foot square test pits were sunk on the site south of the road. Artifacts recovered included fragments of full-grooved axes, crudely chipped projectile points, pitted hammerstones, and one fragment of pottery. This sherd is dark gray in color, heavily sand tempered, and has a regular series of punctations alternating with ridges, and giving a fish-scale pattern. This type of pottery was found on no other site in Wayne County (See Plate XI).

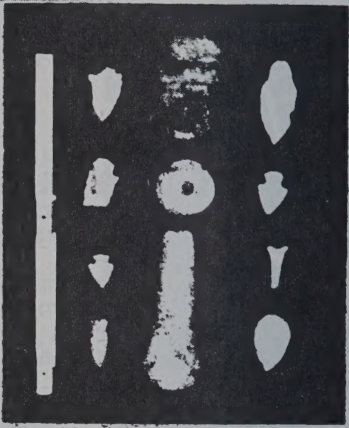
Many mussel shells and a few fragments of deer bones were found in the test pits.

The chipped stone points were similar to those of We:1 except for a few minor differences and the absence of serration.



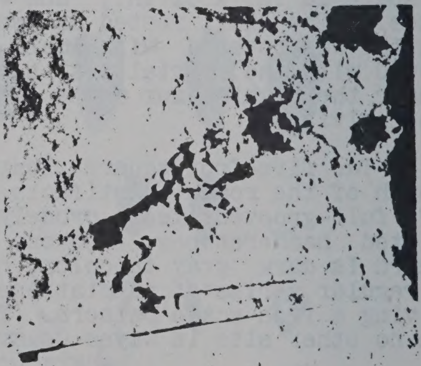


Skeleton No. 1



Collection of Melvin Morse

Skeleton No. 2



Skeleton No. 3

Plate V

We:4

The village site designated We:4 was in the NE¼ NW¼ Sec. 20 Tp. 27 R 7W, on the Lewis Morse property. The site was on a knoll or point of land in a cornfield, and extended to the west bank of the St. Francis River. It was east of Mr. Morse's house. A railroad cut was on the western edge of the site, just east of which an old house had once stood. There was little flat space on the knoll, and it sloped in three directions, east, south, and north.

The surface was rich in village debris. A spot was selected for the excavation on the peak of the knoll at the approximate center of the site. An area was dug equal to a trench twenty feet long, five feet wide and three feet deep. The main axis of the excavation was north to south.

Special features encountered were three skeletons, a human skull, and a pit. The three skeletons were lying in close relation to each other. Skeleton No. 1 (See Plate V) lay at a depth of ten to twelve inches from the surface and was the farthest west of the three. It was either a semi-flexed or extended burial of an adult lying on its back with head to the west. The skull faced upward. The left humerus had been gnawed away just below its head and no lower arm bones were present. Pelvis and femora were missing. Only a tibia and fibula were in place. No artifacts were with the burial, but mussel shells were found around the skull, under the fibula, and where the pelvis should have been. A pile of rocks was also present in the pelvic region.

Skeleton No. 2 was a flexed adult burial, lying on its back, head to the south, legs flexed to the west. The skull rested upon the tibia and fibula of Skeleton No. 1. All the arm bones but a fragment of one humerus were missing. A large piece of flint was found on the right femur but nothing else was with the burial.

Skeleton No. 3 was also a flexed burial of an adult, lying on its back, head to the east. The vertebrae, pelvis, and left femur were well articulated. The skull was articulated also, but was fragmentary. Other bones were missing. Nothing was buried with the skeleton. Skeletons 2 and 3 were eighteen to twenty-two inches beneath the surface.

A complete skull of an adult was found alone about eight feet north of the three skeletons.

The pit was oval in shape, and was approximately four feet in length, two feet in width, and eighteen inches in depth. The disturbed portions of Skeletons 1 and 2 were included in the pit, probably explaining the disturbance. The pit seemed to be partially lined with mussel shells, and contained pottery fragments and animal bones. The soil in it was much darker in color than that found elsewhere, indicating that it may have been a refuse pit.

Artifacts found on the surface and in the excavations

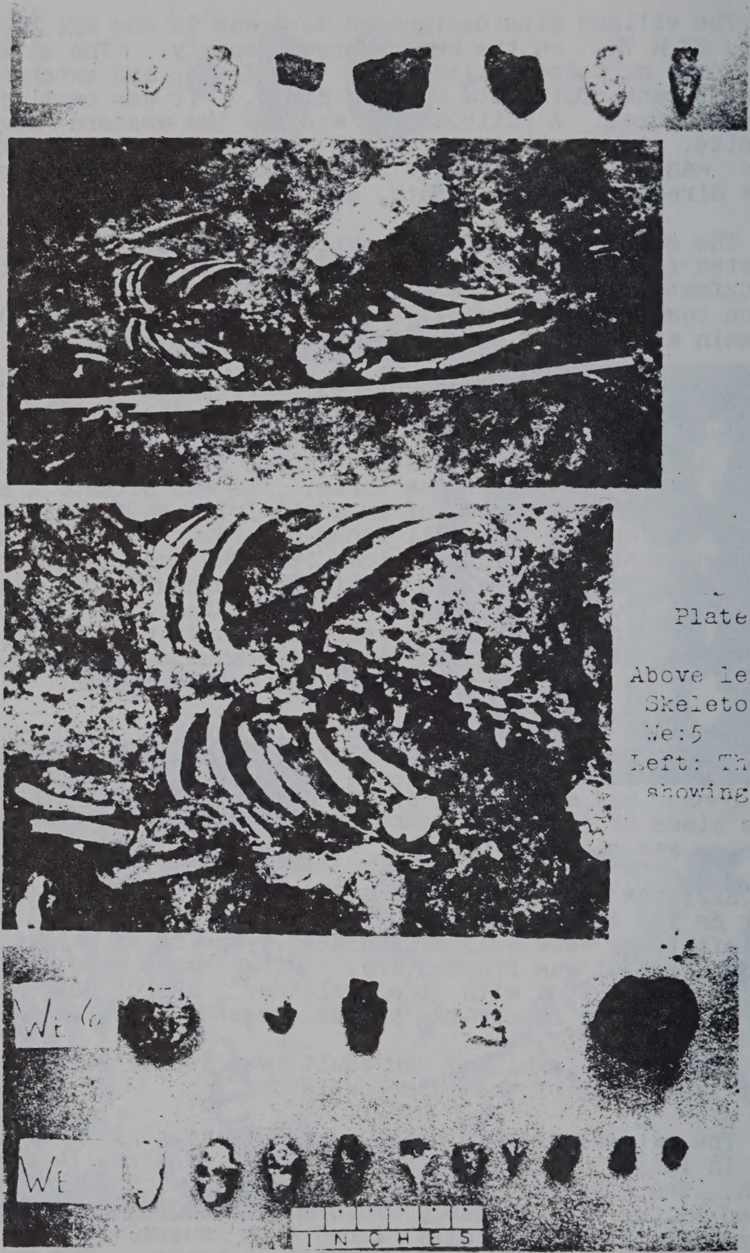

We 6
We
INCHES

Plate VI

Above left:
Skeleton from
We:5
Left: The same,
showing knife

included granite celts, pitted hammerstones (one of which was beautifully made), crude flint and rhyolite scrapers and rejects, crudely chipped projectile points and drills. There were several small projectile points, some showing attempts at secondary chipping. One was triangular in shape, the others with stems and barbs. Melvin Morse has a collection from the site which includes a discoidal-like form.

Pottery. Potsherds from this site represented Wares 1, 2, and 3.

Those of Ware 1 were gray, cord and brush marked, tempered with sand, fairly hard, 5-8 mm. in thickness, and had rough surfaces. One small sherd was dark gray in color, decorated with what we took to be an impressed net design (See Plate XI). The only rim was of the vertical type. Several specimens had been cord marked and subsequently smoothed.

Ware 2 was represented with a number of sherds, grit tempered, buff to reddish brown in color, with no decoration on the specimens found.

Ware 3 was represented with sherds tempered with shell, in color gray, buff, and reddish brown, rough surfaces, a few specimens cord marked. One piece might have been a handle or leg (See Plate XIII). Another specimen appears to have been the corner of a flat-bottomed vessel (See Fig. 3 and Plate XIII).

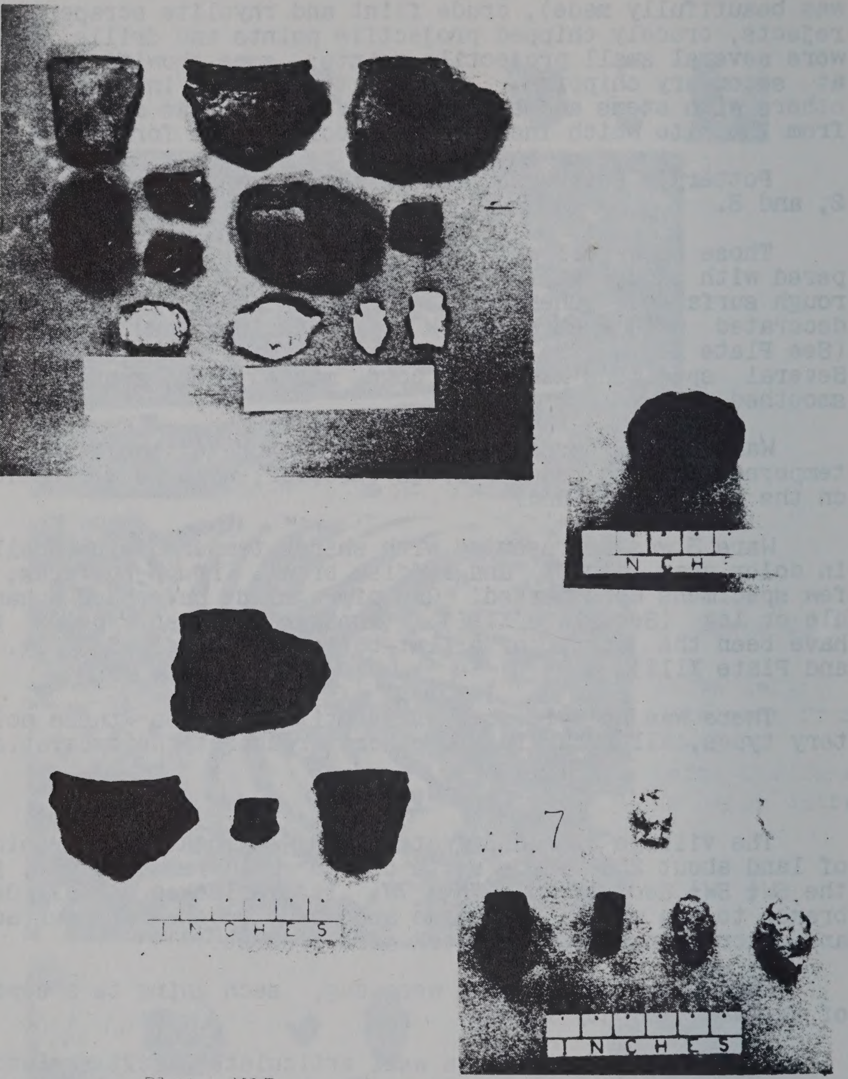
There was no evidence of stratification in these pottery types, all occurring together throughout the excavation.

We:5

The village site designated We:5 was located on a point of land about 250 yards north of the St. Francis River, in the SW¼ SW¼ Sec. 17 Tp. 27N R 7W. It overlooked a small dry branch to the west. Lespedeza and weeds covered the surface and outcroppings of chert rock were present.

Five five-foot squares were dug, each going to a depth of twelve to twenty inches.

One special feature, a well articulated adult skeleton, was uncovered (See Plate VI). The burial was semi-flexed, lying face downward with head to the northwest, legs to the southeast. The legs were bent backward at the knee, feet resting on the pelvis. The skull was missing, as well as the left arm and the lower arm bones of the right arm. A large chert boulder lay upon the right side of the pelvis. The only artifact found with the skeleton was a pinkish flint knife which lay between the lower ribs on the left side of the burial. This implement perhaps was the cause of the death of this individual, rather than a grave offering. Just southeast of the skeleton was a scattered, possibly secondary, burial. Fragments of skull, a few ribs, vertebrae, and pieces of leg bones were found.


INCHES
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7
INCHES

Plate VII

Artifacts found were few in number and consisted of crudely chipped projectile points and pottery fragments. The projectile points are similar to those of We:3, with the exception of the knife which was found with the burial, which was well made, very thin, showing some fine secondary chipping along the edges.

We found no ground stone artifacts, but the owner of the land had in his possession several full-grooved axes which he had gathered from the site.

Five potsherds were found. Four of these are similar to Ware No. 1, except that they manifest a slight brownish tint on the outer surface. One small sherd resembled Ware 2.

We:6

The camp site designated We:6 lay on the east slope of an isolated hill on the property of Mr. Bud Allison, SE¼ NE¼ Sec. 29 Tp. 27N R 7W. A spring branch ran just north of the site. The St. Francis River was some one hundred yards distant on the west side of the isolated hill.

Three five-foot squares were sunk to a depth of twelve to twenty-four inches. Sterile soil was reached at a depth of ten to twelve inches.

Although many axes, celts and projectile points had been collected from the surface by James and Reed Allison, very few artifacts were found in the testing. Pitted hammer stones, hand hammers of quartzite, and crudely chipped projectile points were the only artifacts found.

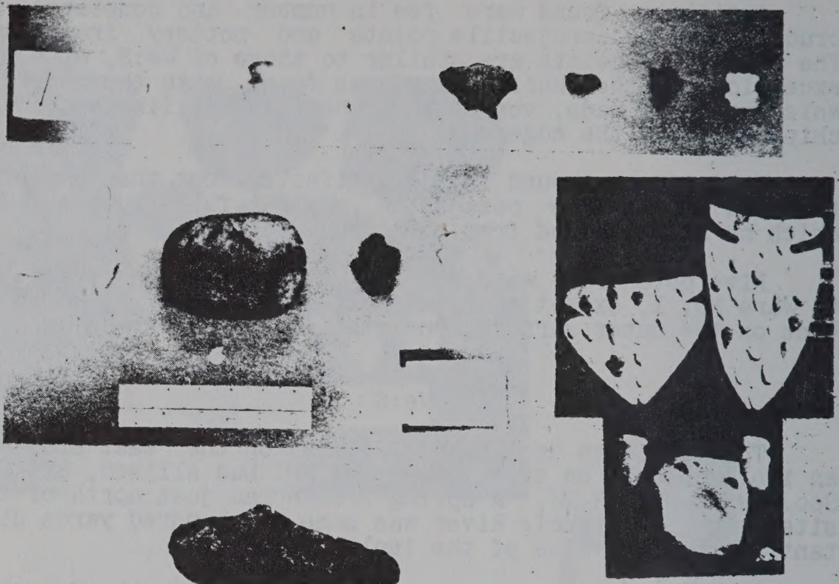
The absence of pottery and the scarcity of artifacts suggest that this site was merely a temporary camp.

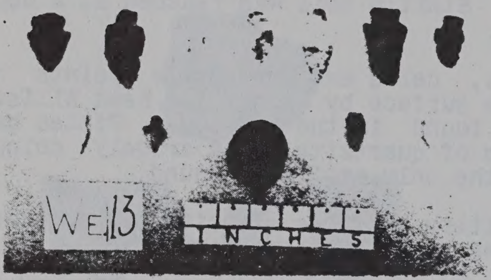
We:7

We:7 was also on the property of Mr. Bud Allison, but was approximately three-eights of a mile south of We:6. A small dry branch and a hill lay between the two sites. We:7 was located on a river terrace, or second bottom land, about fifteen yards east of the St. Francis River, NW¼ SE¼ Sec. 29 Tp 27N R 7W.

The site was covered with lespedeza, and it was only the pottery fragments gathered in the summer of 1938 that gave any indication of this having been inhabited. Two five-foot square test pits were sunk to a depth of twenty-four inches. The soil was very sandy, and nothing much was found in the upper twelve inches. At a depth of twelve inches, however, we found a small complete pot, a number of potsherds, and a cache of hematite and galena.

Very few chipped stone artifacts were found. One of these was of flint, the other of quartzite. All were crude




WE13
INCHES

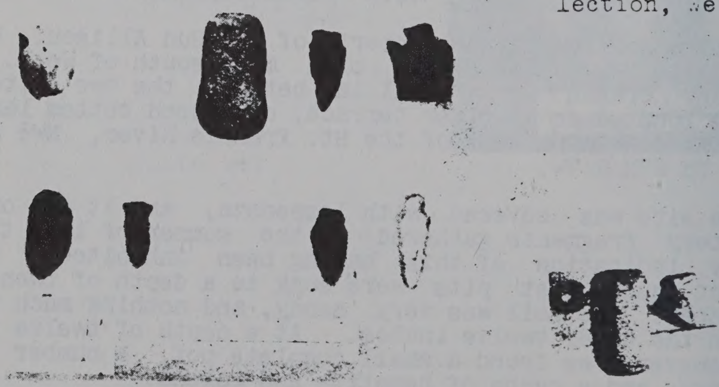


Plate VIII

Above: Thornburgh Collection, We:12
Below: Gifford Collection, We:14

pieces. The bits of hematite found in the cache showed signs of having been ground, but as they had no definite form we concluded that they had been ground perhaps for use in making paint.

The pottery at this site was abundant, compared to its scarcity at other sites. It was chiefly of Ware 2. In color it is reddish brown; there are no decorations; and it crumbles very readily between the fingers. The surface is roughly smoothed. Tempering is sand, grit, and hole. In thickness most of the specimens are 3-5 mm.; but four pieces, probably from salt pans, are about 14 mm. Other pottery, judging from the few specimens available, seems to have been of the olla type, globular in shape. Rims are straight, perhaps slightly flaring, running at about a 135 degree angle from the body (See cross section No. 3, Page 12; Plate VII). The lips are slightly rounded.

We:8

Village site We:8 was on Mr. James W. Owenby's property in the SW¼ SE¼ Sec. 32 Tp. 28N R 6W. The site was in a cornfield on the south slope of a gently sloping hillside about two hundred yards north of the St. Francis River. An old road and a vacant house were at the north edge of the site, and a spring and spring branch were on the western edge.

Three five-foot square test pits were dug. Village debris extended to a depth of two feet, and the pits were sunk to depths of two-and-a-half to three feet.

Artifacts found included crudely chipped projectile points, pitted hammerstones, a drill, and pottery fragments. Potsherds were small in size and few in number. Six specimens were similar to Ware No. 2, and three specimens were of Ware 1.

We:9

Village site We:9 was on the Ules Layton property in the NE¼ NE¼ Sec. 9 Tp. 27N R 6W. It was in a pasture on a bench of land overlooking a spring branch to the south and about sixty yards north of the St. Francis River. A high hill encircled the northern half of the site.

Two five-foot square test pits were sunk to a depth of two and a half feet on the south edge of the bench. The soil was very sandy. Artifacts found were crudely chipped projectile points and pottery fragments.

There were six potsherds recovered. These represented Wares 1 and 2. The one large sherd was light gray in color, cord marked, and sparsely tempered with sand. Another sherd is heavily sand tempered, light buff on outer surface, the remainder black. A third sherd is reddish brown throughout, sand and grit tempered, rather porous in texture. Others are brown on outside surface, the remainder black, with grit and hole tempering.

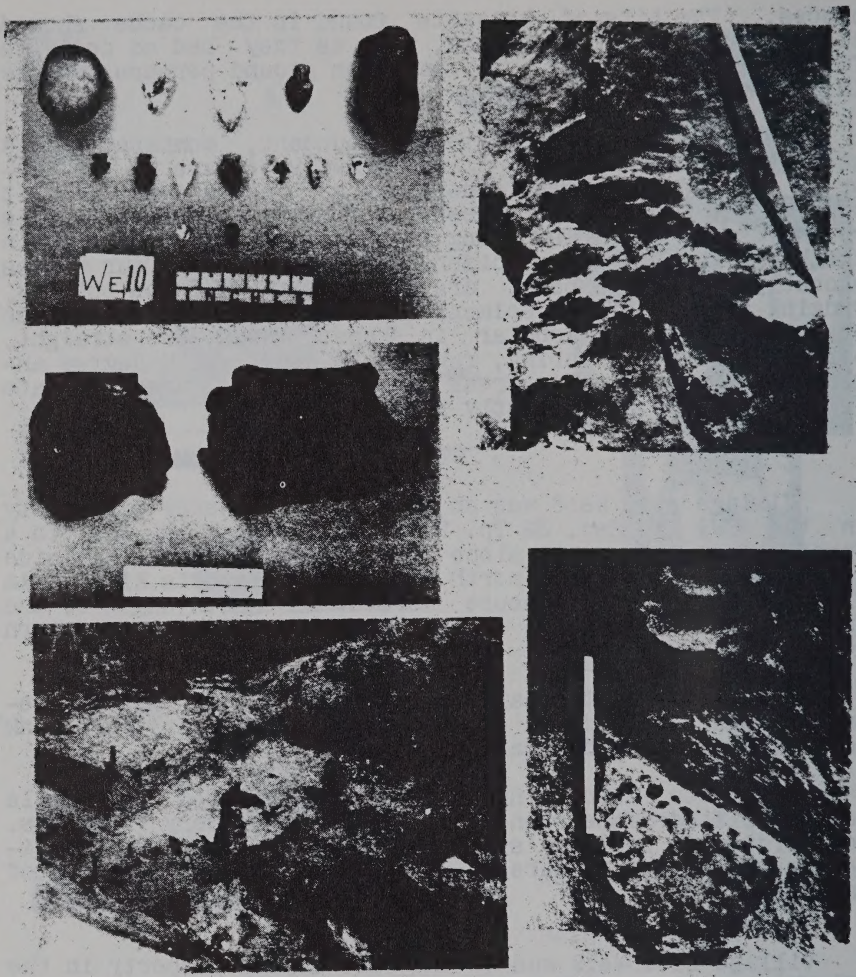


Plate IX
See Page 77 for Explanation

We:10

The village site designated We:10 was on the property of Mr. J. R. Harrison in the NE¼ NW¼ Sec. 9 Tp. 27N R 6W. The main part of the site lay on a sandy knoll in the bottom land just west of an isolated hill. The St. Francis River was about a hundred yards to the east. A dry branch was just west of the site.

A trench five feet wide and fifteen feet long was dug, running east to west. This trench was extended west another five feet, and four five-foot squares were taken north.

A special feature was the remains of a house structure. This was at a depth of sixteen to twenty inches beneath the surface. The house had burned, and evidently sand had been thrown over it while still burning. The timbers, though charred, were not completely consumed. The structure had been rectangular in shape and approximately seven feet wide and nine feet long. The corner posts were four to five inches in diameter and at least five feet in height, judging from one post which we were able to trace that distance. The other timbers varied from one to two-and-a-half inches in diameter.

At the southwest corner of the house we found several large pottery fragments beneath the charred timbers. About two feet west of the northwest corner we encountered a large pottery fragment and a shallow sandstone mortar. The mortar had a large concavity on one side and a series of small cups on the other. The photograph in Plate IX shows the cupped side of the mortar. About two feet from the northwest corner of the house was a pile of flint rocks, which may be seen in the lower left photograph of Plate IX. Charcoal and ashes were found on the east side of these rocks, suggesting that they may have formed a fireplace.

The artifacts recovered included a mortar, a celt, pitted hammerstones, crudely chipped projectile points, very small projectile points similar in all features, except in size, to the larger ones. One of the smaller points is almond-shaped, plano-convex in cross section.

Pottery. Of Ware No. 1 we found eleven small sherds. Eight of these were cord marked, the other three brushed.

Of Ware No. 2 we found ninety-eight sherds. Seventy-nine of the body sherds had no decorations, and nine were cord or brush marked. The other ten sherds, all undecorated, were from rims or bases. One rim was vertical, two were the thick salt-pan type (No. 4, P. 12), one of type 1, one of type 2, one of type 10, two of type 12, one was the corner of a flat-bottom vessel, and one was too small to determine its type.

Six sherds represented Ware No. 3. These were shell tempered, but contained small amounts of grit, perhaps accidental. Included also was a large portion of a flat-bottom vessel.

From these six sherds most of the shell tempering had leached out. This suggests the possibility that some of the sherds which we have classified as Ware No. 2 may have originally been a shell-tempered ware.

We:11

This village site was on the property of D. B. (King) Green, SW¼ NE¼ Sec. 16 Tp. 29N R 5W. It extended to the north bank of Clark Creek. The St. Francis River was about one-half mile to the east.

A trench fifteen feet long, five feet wide, and three feet deep was dug from east to west across the hillside on which the village had been situated.

Artifacts included large, crude projectile points, rejects and scrapers, pitted hammerstones, two very small projectile points, and pottery fragments (See Plate IV). The small projectile points were made after the pattern of the larger ones. Four end scrapers were found, making this site unique for Wayne County, as we found this type of scraper at no other place. They are, however, rather crude. The bevel tends to extend entirely around the object. One "scraper" was round and thin, being made from a single flake, and the entire circumference is beveled. One point had serrated edges. Another was characterized by an unusually deep concave base.

Pottery. Three sherds representing Ware No. 1 were found. One of these was cord marked, the other two well smoothed; all heavily sand tempered; in color light to dark gray.

Nine sherds were of the Ware No. 2 type. In color they were buff to reddish brown. Six of these were cord marked. All were sparsely grit tempered; three were rather porous, with rough, undecorated surfaces.

One rim was straight in cross section.

We:12

The site designated We:12 covered most of the southern and eastern slopes of an isolated hill, on the property of Mr. C. L. Joplin, in the SE¼ SE¼ Sec. 2 Tp. 28N R 5W. The St. Francis River made a wide bend around this hill.

The debris from the village was scattered thinly over the site. Only three small test pits were dug. A dense growth of lespedeza covered the site, making it difficult to conduct our explorations.

Artifacts found included shallow sandstone mortars, some with cups around the edges, pitted hammerstones, crude projectile points, one of which was only 16 mm. in length. Mr. Thornburgh has a collection from this site (See Plate VIII), which includes full-grooved axes in addition to those types enumerated.

We:13

Village site We:13 was in a pasture on second bottom land about one hundred yards east of the St. Francis River. This site was separated from another large site to the north by a small dry branch. It is on the Will Davis property, in the NE¼ SW¼ Sec. 22 Tp. 29N R 5W.

Two test pits, one 10 x 5 ft. and the other 5 x 5, were dug to a depth of two feet, at which depth sterile soil was encountered.

Artifacts included crude full-grooved axes, pitted hammerstones, one porphyry ball, large crudely chipped projectile points, small projectile points with attempts at secondary chipping along the edges, a pottery elbow pipe, possibly equal armed, and pottery fragments.

The pottery included twelve small sherds of the Ware No. 1 type, ninety-three of Ware No. 2, and nineteen of Ware No. 3. Note that the relative frequency of these three wares compares closely with their frequency at We:10.

One rimsherd of the gray, sand tempered type that we have called Ware No. 1 was slightly flaring in cross section (See No. 5, P. 12).

Of the Ware No. 2 fifty-three specimens had no decorations, forty were cord and brush marked. One rim of the straight or vertical type appeared.

Of the shell tempered Ware No. 3 five specimens were plain, fourteen were cord or brush marked.

The clay pipe closely resembled the Ware No. 3 pottery. It is shell tempered, with flaring bowl, buff to reddish brown in color (See Plate XII).

We:14

The village site designated We:14 is actually not in Wayne County at all, but a few hundred yards north of the county line in Madison County. The site lies on a bench of land about one hundred yards east of the St. Francis River. A line of hills forms the eastern border of the site. A large spring emerges from the base of the hill near the southeastern edge of the site and flows west to the St. Francis River. We:14 is on the property of Mr. J. T. Gifford, in the E½ SW¼ Sec. 36 Tp. 31N R 5W.

An area equal to five five-foot squares was removed to a depth of twelve to thirty-six inches, where sterile soil was reached.

Several areas on the site were literally covered with mussel shells and other debris. We took these to be the house sites, and included one of these areas in our tests.

We were disappointed, however, to find that these evidences were only on the surface, the village debris extending barely below the plow line.

Artifacts from this site included a crude celt, large crude projectile points, and potsherds. Large quantities of mussel shells, deer bones, and a few human bones were also found on the surface. Mr. Gifford had collected from the surface of the site a piece of a stone effigy pipe, a celt, and a discoidal (Plate VIII, P. 24.)

Pottery. Ware 1 was represented with fourteen sherds. These were all cord or brush marked. One rim was slightly flaring, with a unique collar (No. 9, P. 12.) Another rim (No. 6, P. 12) had a notched lip.

Ware 2 was represented with eighteen sherds. Seven of these had no decoration, eleven had cord or brush markings.

Ware No. 3 was represented with ninety-one sherds. Of these, twenty-four were undecorated, and sixty-seven had cord markings. One of the undecorated sherds was a rim, (No. 8, P. 12.), and one of the cord-marked sherds was a rim of vertical type.

New wares, unlike those on the other Wayne County sites made their appearance at We:14. One of these, which we have called Ware 4, was represented with forty-four sherds. These were tempered with shell and limestone. Some of these were quite thick, about 15 mm. Two rims were vertical, and two slightly flaring. A roughly circular pottery disk, with the hole partly bored, and one pipe stem, were also tempered after the fashion of this ware.

A second new ware, which we have called Ware 5, was represented with 145 sherds. These were tempered with crushed limestone. All were either cord or brush marked. They varied in thickness from four to eighteen mm. One rim was of vertical type. This ware was fairly hard, and its colors included gray, buff, red, and brown. Except for the absence of the shell in the tempering material this ware is indistinguishable from Ware 4. These two wares are illustrated in Plate XIII, Page 36.

Conclusions

Proposing theories and drawing conclusions are hazardous after a brief survey, such as we have conducted, and the mere sampling of a few sites. However, certain tentative suggestions have come into our minds. Even these may have to be revised, or discarded, when additional information on the prehistory of the Mississippi Valley is available.

First, we have no evidence as to when the Indians first came to the region of Wayne County, nor as to how long they resided there; but we are reasonably sure that none were living there when, and after, the white men arrived. Except for the copper pin at We:1, we found no evidence of trade material. In other sections of the state, where Indians were living in the historic period, we find much copper, iron, and glass. Local traditions relate visits of Cherokees, and early maps locate Shawnee villages just across the county line, but we found no indications of Indian-white contacts in the county.

Second, the cultural materials of Wayne County seem to be chiefly of the Woodland pattern. The small camp sites, the crude projectile points, the grooved axes, the flexed and semi-flexed burials, the virtual absence of house structures, all suggest a Woodland culture. The pottery, in most of its features, resembles more closely the Woodland than it does the Middle Mississippi and Upper Mississippi types that are found elsewhere in the state.

Third, The Woodland culture of this county, however, differs from that of Boone County (The Missouri Archaeologist, Vol. 4, Nos. 1 and 3). In the latter region we found burial mounds, three-quarter-grooved axes, large agricultural tools, which did not occur in Wayne County. On the other hand, traits found in Wayne but not in Boone included full-grooved axes, burials in village sites, pottery tempered with shell and limestone, flaring rims, flat bottoms, and "discoidals." Perhaps, when the problems of classification have been settled, these two cultures will occupy different phases, or different aspects of some phase, of the Woodland.

Fourth, the Woodland culture of Wayne County gives evidence of considerable influence from the Middle Mississippi culture of the area to the southeast. This is not surprising in view of the presence of the St. Francis and Black rivers. This Middle Mississippi influence is present in the "discoidals", the small projectile points, the efforts at secondary chipping, and the rims, tempering, and shapes of the pottery. This influence, however, is much more in evidence on some of the sites than on others, which fact is not inconsistent with the theory that we have in Wayne County a Woodland people gradually coming under the influence of their more advanced neighbors to the southeast.

- -

Acknowledgements

We take this opportunity to acknowledge our indebtedness to the many people of Wayne County who cooperated with us in making this survey. Several members of the Missouri Archaeological Society who live in the county took an active part in the explorations and assisted with the preparations before we arrived in the field.

We want, especially, to make a record of the names of those who rendered us most valuable service: Messrs. Kenneth Barrow, J. L. Wilkinson, Montgomery, G. B. Allison, Lewis Morse, W. L. Sanderson, J. W. Owenby, J. R. Harrison, Ules Layton, D. B. (King) Green, F. W. Carlton, C. L. Joplin, and Will Davis.

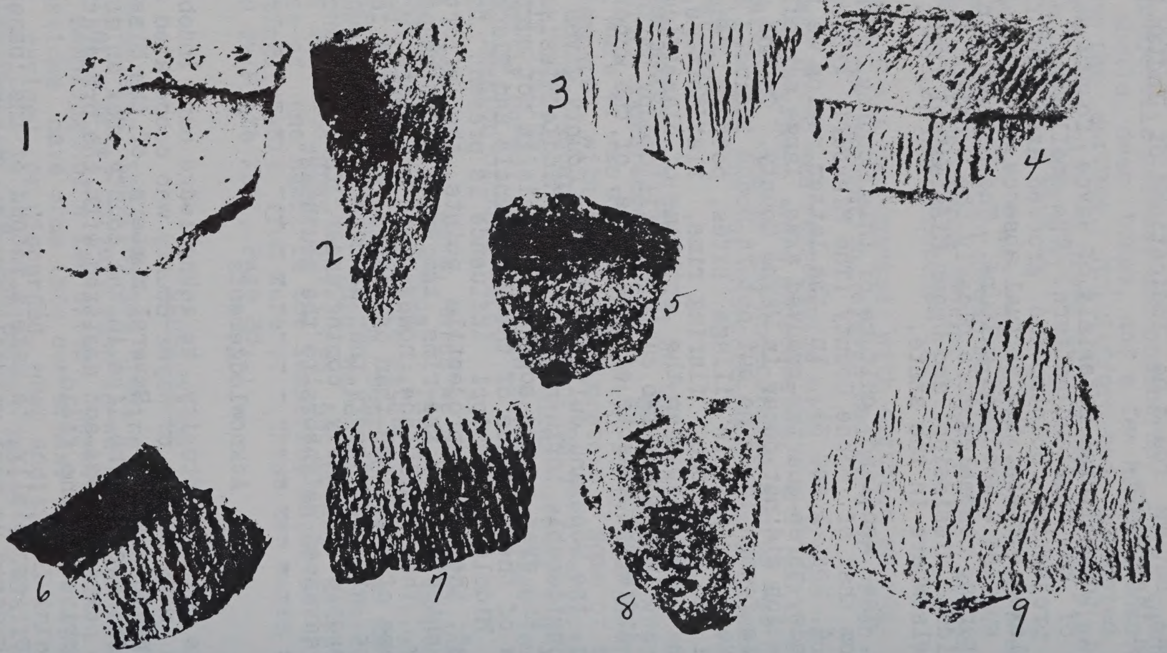


PLATE X

EXPLANATION OF PLATES X, XI, XII, XIII

Plate X

1. Rim, Ware 2, We:10
2. Rim, Ware 1, We:4
3. Rim, Ware 5, We:14
4. Rim, Ware 1, We:14
5. Rim, Ware 2, We:10
6. Rim, Ware 1, We:13
7. Rim, Ware 2, We:11
8. Rim, Ware 2, We:10
9. Rim, Ware 5, We:14

Plate XI

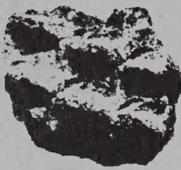
1. Ware 1, We:3, only punctate design found
2. Ware 1, We:4, only net design found
3. Ware 1, We:4
4. Ware 1, We:4
5. Ware 1, We:5, brushed and smoothed
6. Ware 1, We:5, brushed and smoothed
7. Ware 1, We:4, cord marked and smoothed

Plate XII

1. Pipe, Ware 3, We:13
2. Handle or leg, Ware 3, We:4
3. Base of flat bottomed vessel, Ware 3, We:4
4. Rim, Ware 3, We:1
5. Ware 3, We:1

Plate XIII

Wares 4 and 5, We:14



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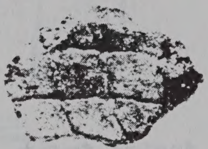

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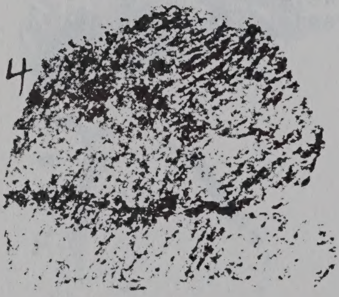

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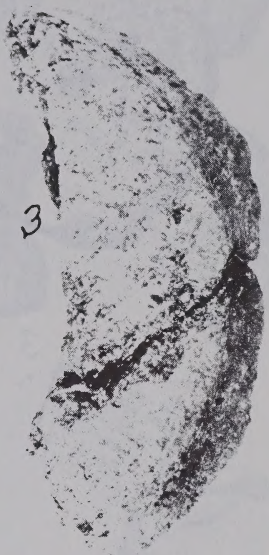
7

PLATE XI

1

3



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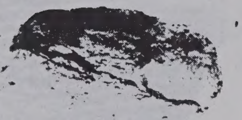

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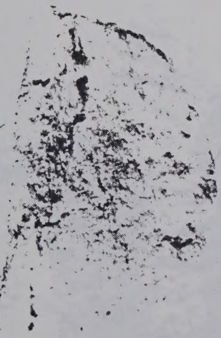

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PLATE XII

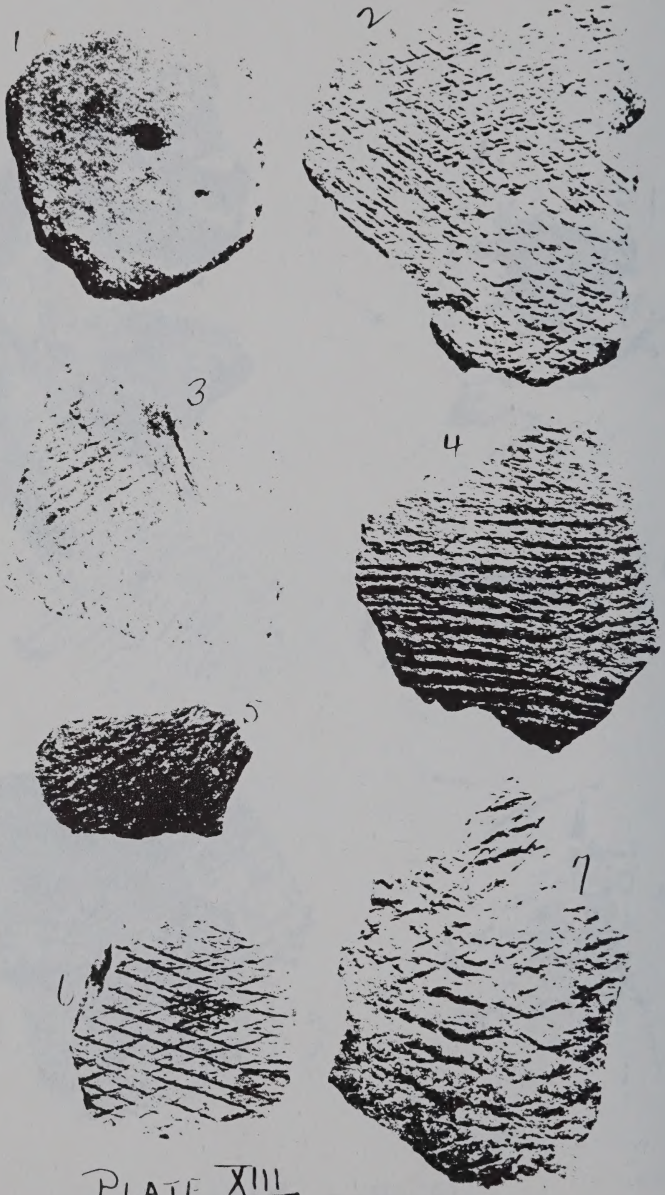
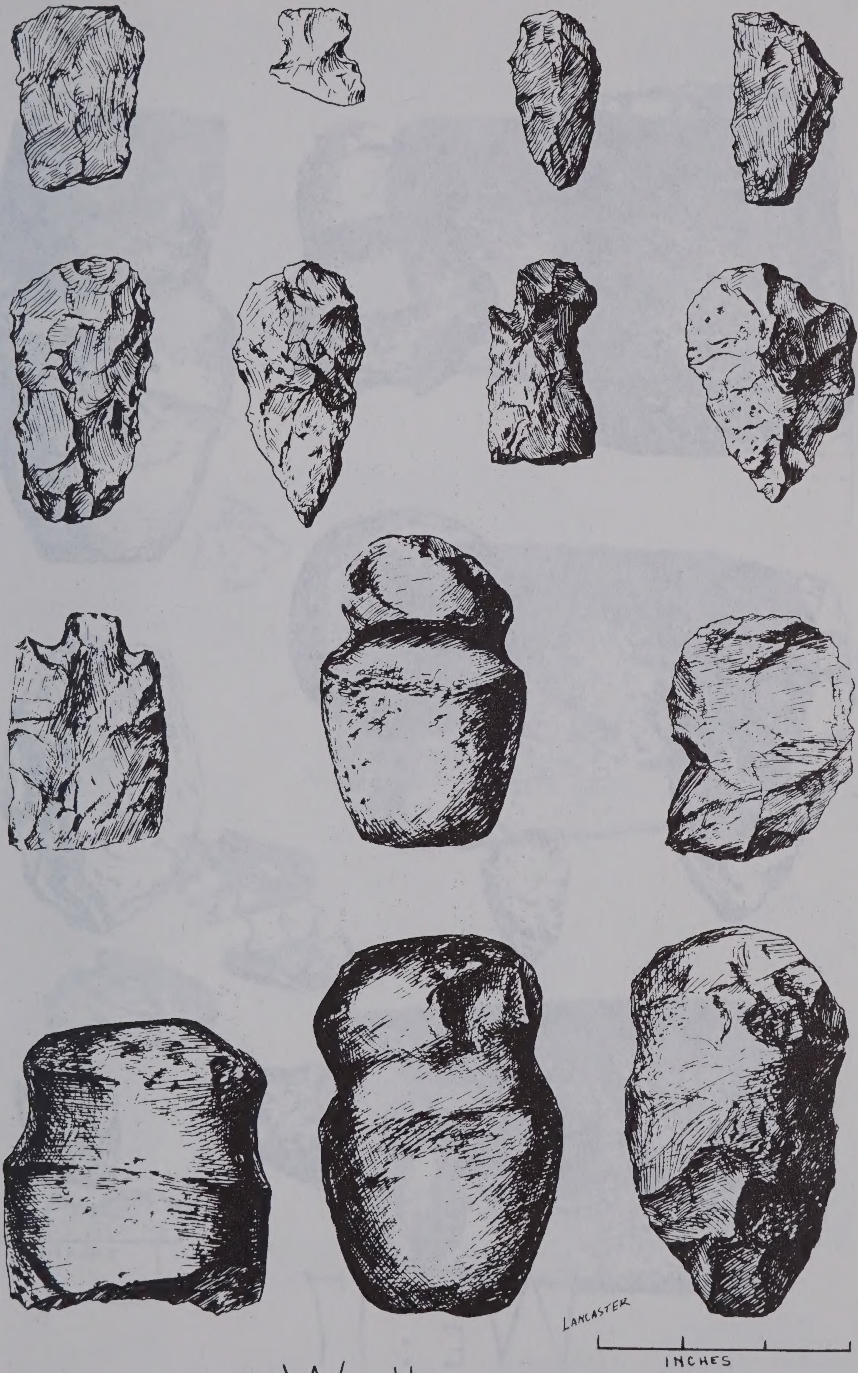
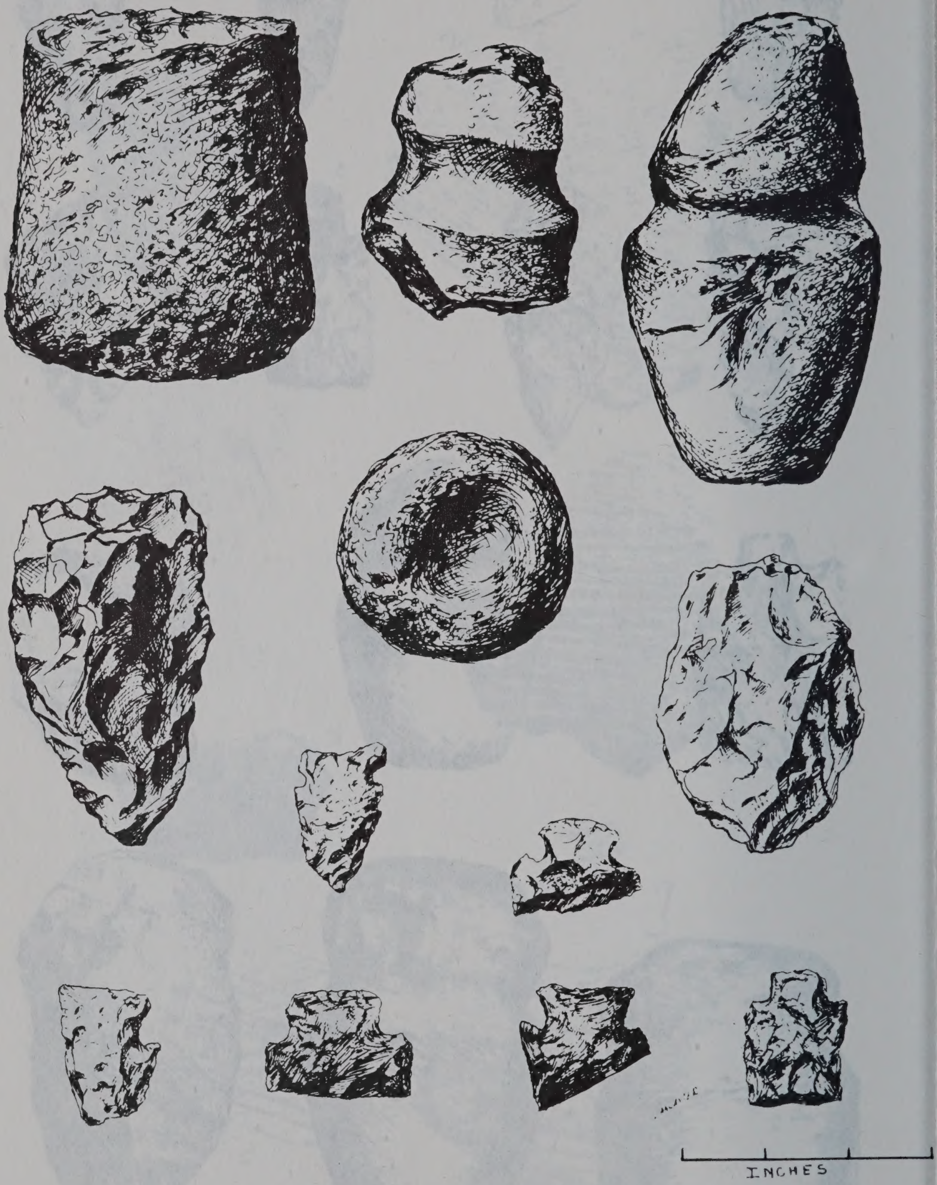


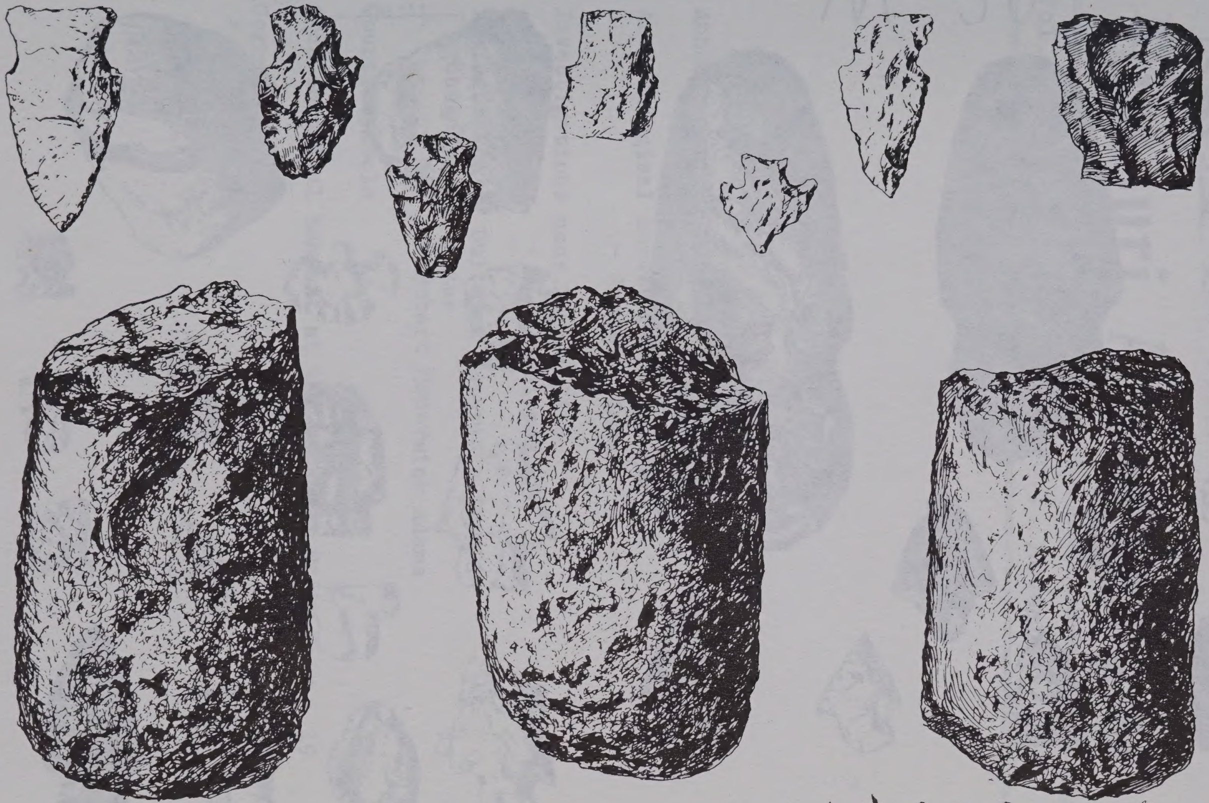
PLATE XIII


LANCASTER
INCHES

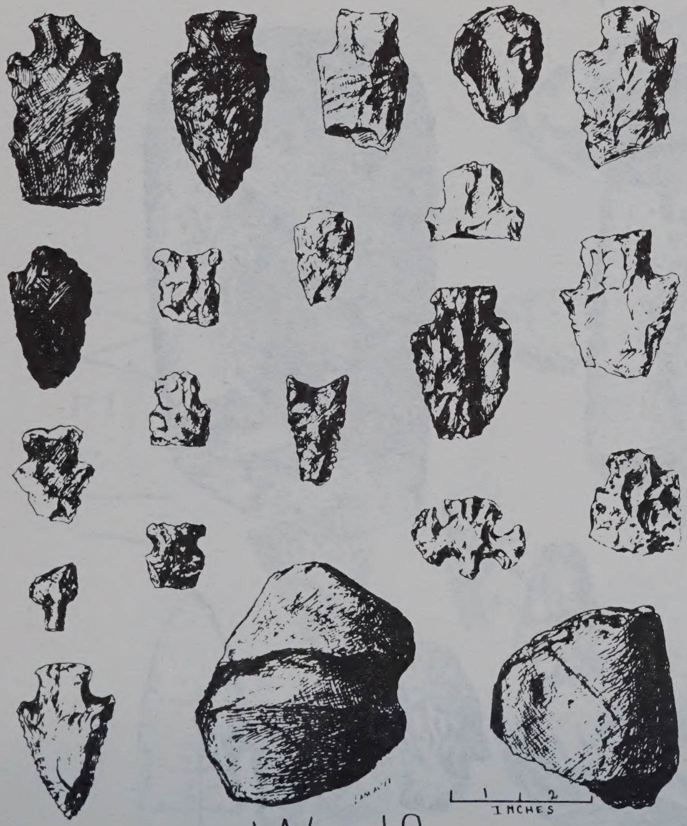
We: 16



We: 17


1
2
3
INCHES
LANCASTER

We: 18



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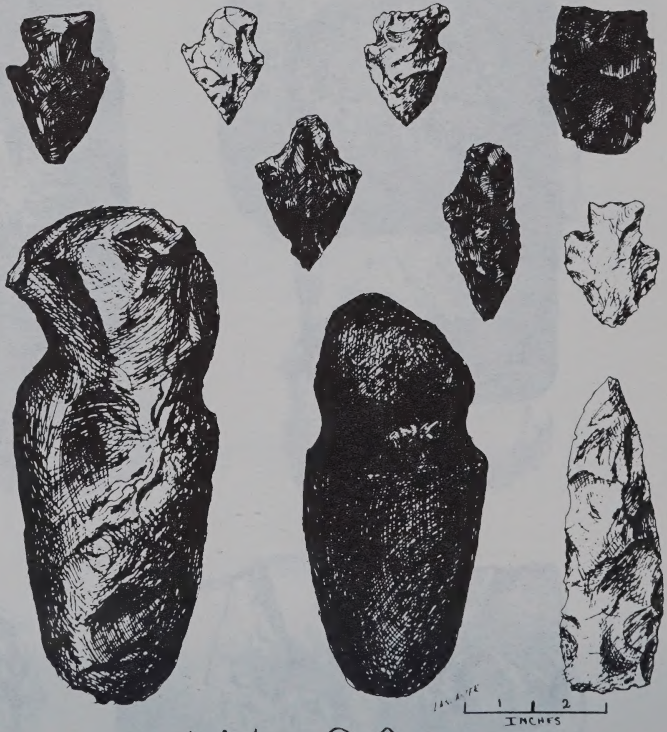

We:20

THE
Missouri Archaeologist

Vol. 6 No. 2 Columbia, Mo., November, 1940.

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The MISSOURI ARCHAEOLOGIST

ANNOUNCEMENT

of

Business Meeting

The Seventh Annual Business Meeting of The

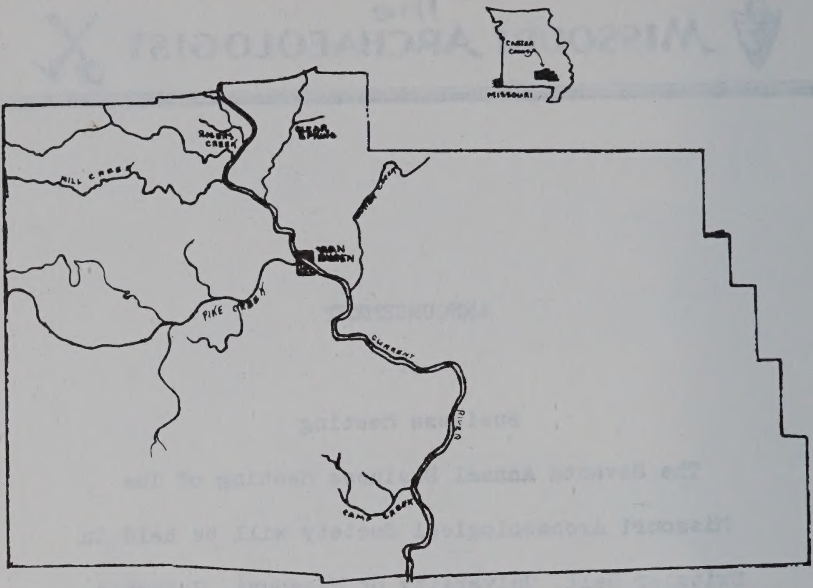
Missouri Archaeological Society will be held in

Switzler Hall, University of Missouri, Columbia,

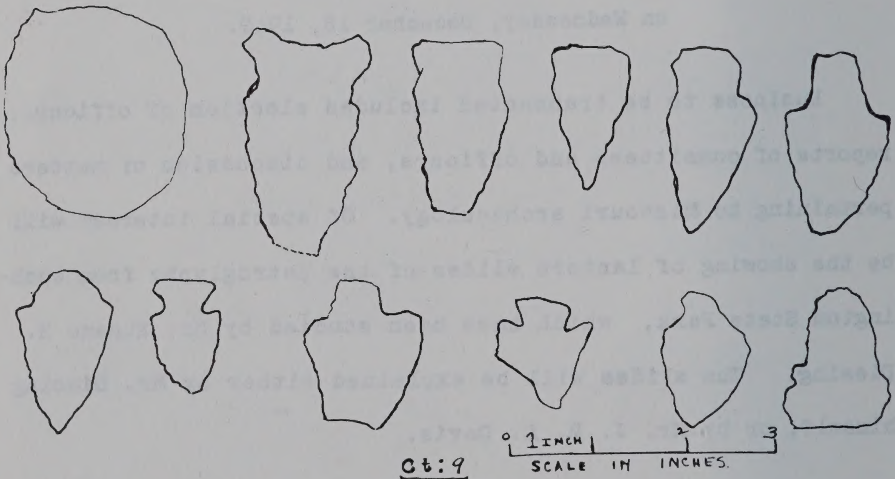
at 3 p.m.

on Wednesday, December 18, 1940.

Business to be transacted includes election of officers, reports of committees and officers, and discussion of matters pertaining to Missouri archaeology. Of special interest will be the showing of lantern slides of the petroglyphs from Washington State Park, which have been studied by Mr. Eugene H. Diesing. The slides will be explained either by Mr. Diesing himself, or by Mr. J. B. L. Davis.


CARTER COUNTY
MISSOURI
ROGERS CREEK
MILL CREEK
VAN BUREN
PIKE CREEK
CURRENT RIVER
CAMP CREEK

Carter County Missouri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Ct:9

Archaeological Investigations in Carter County

by

James L. Lowe
Van Buren, Mo.

Carter County is located in the Ozark region of south Missouri. Only one county, Ripley, separates Carter County from the state of Arkansas. Adjacent on the east is Wayne County, where archaeological investigations have been made by the University of Missouri, the results of which study have been published in the Missouri Archaeologist, Vol. 6 No. 1, June, 1940.

The county is rugged Ozark hill land. A large part of it lies in Clark National Forest. Big Spring State Park is located near Van Buren, the county seat. Current River runs through the county from north to south, dividing the county into two nearly equal parts. The region near the eastern boundary of the county is drained by Black River.

The writer was assisted in these investigations by Joe Conklin, Ben Davis, and the Boy Scouts of Van Buren. The method consisted in hiking over the banks of the Current River and its tributaries, collecting specimens from the sites discovered. A record was made of the location and conditions of each site.

Thirty-six sites were found, and practically all of them were within walking distance of Van Buren. Of these thirty-six sites, thirty-one were village or camp sites, four were caves, and one was a mound site. Five local collections were studied, and either sketches or photographs of them were made.

Most of the specimens collected were of chert, although a few quartzite points were found. Projectile points, hoes, bunts, drills, and bird points were gathered. No grooved axes were found, but they were present in local collections. Most of the materials seemed to this writer to resemble the Woodland culture.

Pottery was found on only two sites, Ct:36 and Ct:9(1). The pottery from Ct:36, a cave, was shell-tempered, and most of it was reddish in color. A good many potsherds, as well as many stone artifacts, were gathered from Ct:9, a village site, located near the mouth of Pike Creek, on the property of Houston Randolph. Among the remains were fifteen small points and many pieces of shell-tempered pottery. Two pieces of grit-tempered pottery were found also.

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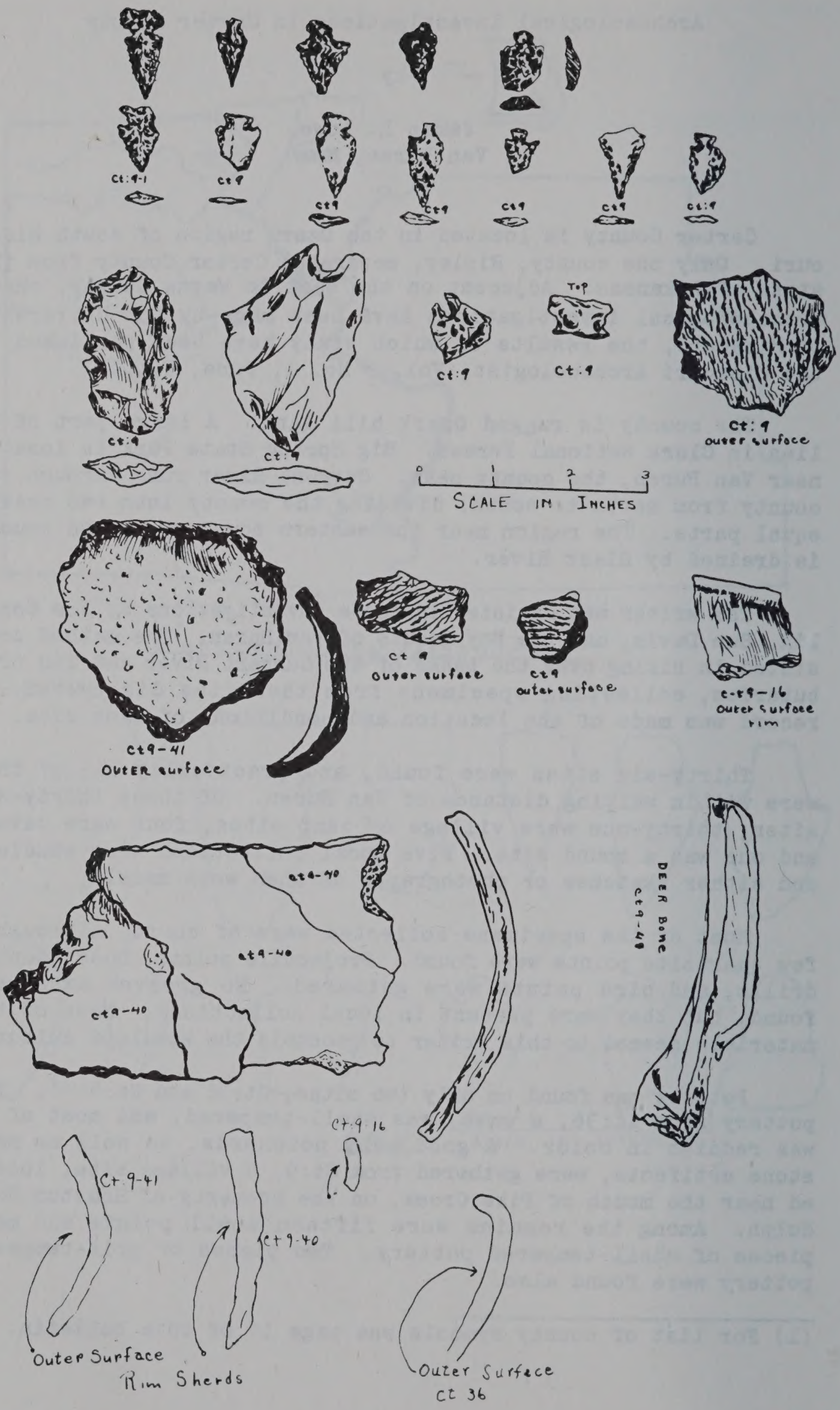
(1) For list of county symbols see page 18 of this bulletin.


Ct:9-1
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ct:9
Ct: 9
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2
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SCALE IN INCHES
ct9-41
OUTER surface
ct 9
outer surface
ct 9
outer surface
c-t9-16
Outer Surface
rim
ct9-40
ct9-40
ct9-40
DEER Bone
ct9-48
Ct 9-16
Ct 9-41
ct 9-40
Outer Surface
Rim Sherds
Outer Surface
Ct 36

Only three pieces of the pottery had decorations on them. Two shell-tempered sherds were cord marked, while the one piece of grit-tempered pottery appeared to have incised decorations. The pottery varied in color from a light gray and tan to a darker red and black. It varied in thickness from about four centimeters to about eight centimeters.

We decided to sink a five-foot test pit at Ct:9. Finding human bones, we extended the pit another five feet in order to uncover the skeleton. A few chert points, deer bones, and shell-tempered pottery were found. At a depth of about twenty-seven inches this skeleton, in a flexed position, was buried. The head was to the south, with legs drawn up toward the face. The bones were in a fair state of preservation, although some of the smaller ones were broken in the process of removal, in spite of our painstaking efforts.

All the pottery which was found in the pit was shell-tempered. The two pieces of grit-tempered pottery were gathered on the surface, rather than from the excavation. There is, thus, a possibility of stratification, but more extensive exploration would be necessary to determine this, one way or the other. The cultural material from Ct:9 is illustrated on pages 4 and 6.

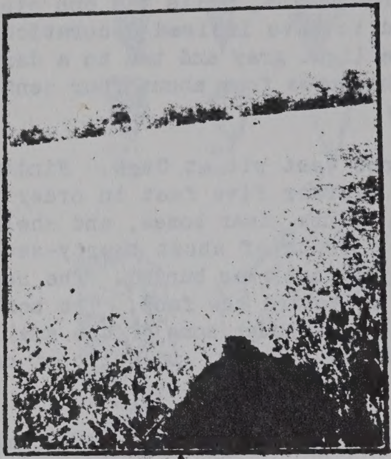
Artifacts were found in only one of the caves, although all of them had large, wide entrances, and seemed suited to habitation by primitive man. These caves deserve further investigation. From one of these caves, Ct:36, we gathered a few potsherds. These were shell-tempered, and reddish in color. A few broken chert artifacts were found in this cave also.

Fifty-five mounds were located in the bottom along Clear Spring Creek. They are similar in appearance to hundreds of other mounds in southern Missouri; they are about 3-5 feet high, and 35-60 feet in diameter. This site is shown in photograph 1, on page 8. The significance of these mounds awaits further archaeological study.

Few conclusions can be drawn, and these conclusions are necessarily tentative, since the work in Carter County has only begun. However, a few observations are in order.

Carter County should be a rich field for the student of prehistoric remains. If the remainder of the county is as productive as the small part that we have surveyed, much valuable material and information are to be obtained.

Since the village sites are small and numerous, the probability is that the county was inhabited by small, migratory bands of people, and over a long period of time. Some of these early peoples buried their dead in a flexed position, and probably right on their camp sites. They used chert implements and shell-



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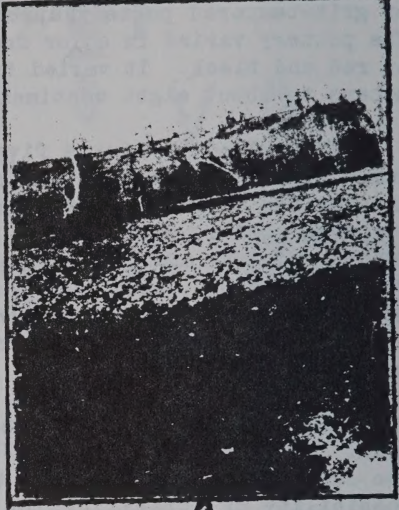

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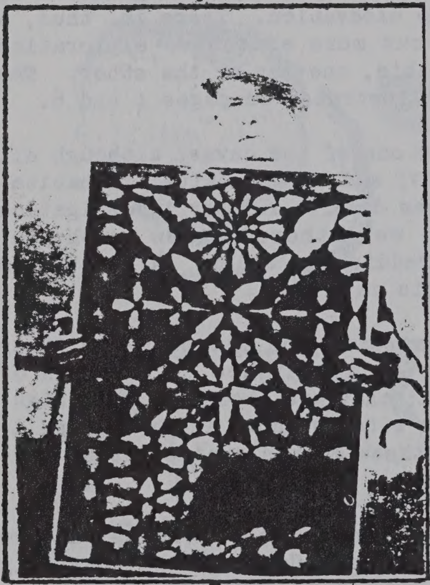

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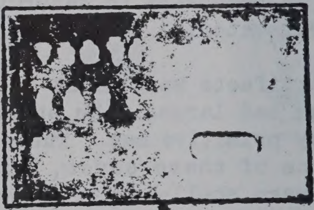

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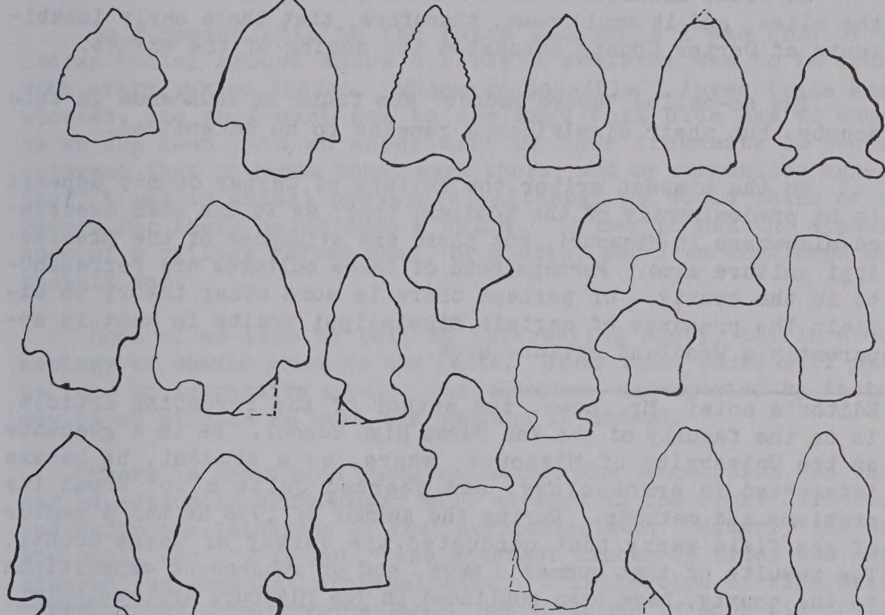
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TYPICAL
CARTER COUNTY
ARTIFACTS

tempered pottery. The split deer bones found in the survey indicate that they relied upon hunting for their food supply; but what use, if any, they made of agricultural products is not revealed.

No trade material from the white man was gathered on any of the sites, and it would seem, therefore, that these early inhabitants of Carter County antedated the coming of the whites.

The so-called "house mounds" are found in abundance in this county, but their significance remains to be determined.

To the present writer the culture of Carter County appears to be predominantly of the Woodland type, as it has been described elsewhere in Missouri; but there are evidences of the Mississippi culture also. Perhaps both of these cultures are represented in the county. Or perhaps there is some other theory to explain the presence of certain Mississippi traits in what is apparently a Woodland culture area.

Editor's note: Mr. Lowe, the author of the foregoing article, is on the faculty of the Van Buren High School. He is a graduate of the University of Missouri, where, as a student, he became interested in archaeology, and learned quite a lot about its problems and methods. During the summer of 1938 he was a member of the field party that conducted the survey of Wayne County. The results of that summer's work, and of subsequent expeditions to the county, have been published in The Missouri Archaeologist, Vol. 6 No. 1, June, 1940.

The work done by Mr. Lowe and his associates illustrates very well how the amateur can make a real contribution to the science of archaeology. They have not gone around promiscuously hunting for relics merely to see how many they could find. Nor have they wantonly destroyed prehistoric remains. They have, on the contrary, carefully surveyed a small area of their county, locating and mapping the camps and other remains of the Indian. Such materials as they could find they have numbered and catalogued, keeping a record of exactly where each relic was found, whether it be perfect or broken. Finally, they have studied their materials, and have written them up for publication, so that everyone interested in archaeology may know what they have found. There are, in the state of Missouri, a great many persons who have come to look upon archaeology as does Mr. Lowe. These people are performing a real service, and are making important contributions to our understanding of prehistoric man in our state. Every one of these people, moreover, will testify that scientific archaeology is far more interesting than is the mere collecting of relics.

Illustrations are by Joe Conklin, a student in Van Buren High School.

Investigations near Kansas City

by

J. M. Shippee
North Kansas City, Mo.

On a recent trip to the Texas panhandle I was told of an Indian burial ground where a horse's skeleton was to be found with every buried Indian. Whenever possible I investigate such stories, and so I went out to see what this site has to show. As we dug down into an assortment of bone fragments it became apparent that no human bones were there, and my companions agreed that it was an animal graveyard, although we could think of no reason for there being such a thing. To me, it had the appearance of a village refuse heap, or midden, and I am convinced now that it was.

Most of us like to tell an interesting story, but in archaeology we should stick to the facts. Given time, facts will pile up into an impressive array. Our theories, unsupported by facts, may be as wild as we have the courage to defend.

There is great need among collectors for cooperation, so that our education in archaeology will advance in the right direction and under the teachings of real archaeologists. Formerly the one who could say, "I've got," the greatest number of times was considered the greatest archaeologist. A collection of fine artifacts can be a beautiful display, but it is not of much aid to the archaeologist unless it is known from what site each piece came. Cooperation with museums, institutions, and scientific societies is of great importance both to collectors and to professionals; for while the one gathers together a jumble of relics, on which he compiles no informative history, the other often spends money and expert talent in excavating what the amateur would consider an inferior site. Personally, I have no regret for having cooperated with collectors and institutions for in our area we do not find those spectacular pieces for which buyers pay fabulous prices; and I would long since have grown casual in my study of Indians, but for my association with professional archaeologists.

When I am asked what is my greatest discovery, I do not hesitate to say Friendship. Men and women from all walks of life have become my friends through our interest in archaeology, and I value them highly.

Artifacts and information gathered from all over the world are of interest to me; but I find that, as an amateur archaeologist, I will never be able to learn all that I would like to know even about the archaeology of the counties surrounding my own home.

The subject broadens to such a scope that one need never lack some phase of it to study. Public libraries are full of interesting books for the student of Indian history or American archaeology.

Great interest has arisen over the age of the so-called "Folsom" points. In this area several Folsom-like points have been found, and while the sites from which they came is known, still the likelihood of finding a Folsom site is very dim, for it will lie in a geological formation that is quite old. As long as these points come to light, however, we can have the anticipation of finding a site, and linking it with other cultures.

We have many sites in this vicinity that were inhabited by a people who apparently did not make pottery. Many artifacts come to light, but without the help that is obtained from pottery fragments, the history of these people will be difficult to obtain. Yet piece by piece, the evidence will stack up, and in time we shall know something about them.

We have found the Hopewellian, or Ohio Mound Builder, type of site here. For forty years collectors gathered and disposed of Hopewellian artifacts from the Renner site without ever determining who the people were who made them. A professional archaeologist, in 1907, excavated the stone-vault mounds on a ridge above this village, but either failed to recognize the culture or was too absorbed in excavating burial mounds to study the general evidence in that area. The looting of the great burial mounds along the Ohio River led everyone to dig into the mounds, and the village sites were neglected. The Hopewellian sites near Kansas City are quite prolific in potsherds, arrow heads, and all camp refuse, and so give ample material for study and comparison with sites to the east. The excavations at this site were valuable for the study of the relationship of the tribes of the Great Plains to those in the East. Since the Renner site was excavated many more related sites in the Kansas City area have been identified, and more are being found up and down the Missouri River, and on its tributaries. One site, sixty miles to the east, was reported by J. B. L. Davis. A peculiarity of this site was that it is located in the Missouri River bottom land, seven miles from the bluffs. A site near Manhattan, Kansas, was reported by Dr. W. R. Wedel, of the Smithsonian Institution. This site is 130 miles to the west. It would be interesting to find how far these people lived up the tributaries of the Missouri.

From the Renner site the pottery compares very favorably with that from Ohio. Pots range in size from tiny, toy-like pieces to others seventeen inches in height. The points are rather large, and of a distinctive Woodland type. Large blades are very rare. Both celts and grooved axes were found. Bone and antler were used extensively in the manufacture of artifacts. No pipes were found.

Abraders of sandstone and pumice were common. Copper, except for a few scraps, was not found. Remains of houses were not found, due, perhaps, to their having been obliterated by plowing.

These Hopewellian people are strongly suspected of having built the stone-vault mounds in this area, but as yet no conclusive evidence has been found. This is partly due to a wave of vandalism that has riddled these mounds, without obtaining any information whatsoever. To my knowledge, no artifact of any real value to relic buyers has been found in these diggings. In Ohio the great mounds contained many wonderful objects; but the mounds in this area, and indeed all graves, seem to be bare of grave offerings. This difference in the burial customs of the same people, in Ohio and Missouri, is one of the things that challenges us for an answer.

An interesting feature of the recent excavations conducted by the U. S. National Museum was the discovery of intrusive burials in the stone vault by a Middle Mississippi culture. Potsherds found with these intrusive burials indicated their association with the Middle Mississippi civilization.

A word, now, about the excavation by the National Museum at the Steed-Kisker site in Platte County, Missouri. For five years it was suspected that a village site was located on the bank of the Platte River, near Farley; but since surface materials failed to show where it was, it was not found until the winter of 1937. Local collectors had gathered points there, but they had said nothing about it, and really could not produce any of the material. Through the reading of Strong's An Introduction to Nebraska Archaeology, we were able to identify the culture, and our deductions were confirmed by Dr. W. R. Wedel when he examined the material.

In the excavation of the Steed-Kisker site great help was extended by the owners of the land, who allowed the party to dig in fields that were in cultivation. Also, the site proved to have a burial place of some eighty graves, which, with two earth lodges and the usual village middens and pits, gave us a good idea of the people who lived there.

The pottery is generally shell-tempered, or with a mixture of shell and very fine sand, but a few with grit tempering were found. The usual shape of the vessels includes a recurved rim, shouldered upper body, and rounded base. Effigy handles were found which were shaped like human and animal heads. Many sherds show incised line decorations in artistic designs. The size of the original pots ranged from toy-like vessels to those measuring twelve inches in diameter and 7½ inches in height. From the burial site came fragments of miniature pots having the same characteristics as did the larger ones from the village.

Flint work was not prolific, but quite a few triangular notched and unnotched points were found. End scrapers, drills and knives were common. Abraders of sandstone were abundant. Of ground stone, we found a few celts and quite a number of manos. Shell hoes, bone awls, antler tapping tools, and stone pipes were also found.

The earth lodge excavated was about twenty-two feet square, and had a long, hall-like entrance to the south. Four posts supported the roof.

The burial site was very interesting. Of the eighty or more burials, most of them were extended in the supine position, but a few were bundle burials, and at least two were flexed. These burials were on the east, south, and west slopes of a small mound, at the terminus of a low ridge. They were arranged on this slope in a manner that would suggest a definite rule for the placement of the body. The fact that the center of the mound held no burial seems significant. One pot, sherds of miniature pots, and a very few triangular points, were the only grave offerings discovered. To those people who insist that the Indian was buried with all his belongings this must seem rather unbelievable, but it is a fact nevertheless.

Dr. W. R. Wedel, who directed the excavations which are described in this paper, is preparing a report on the work in Platte County; and all of us who participated in the work are looking forward to its publication with keen interest, as are all those who are interested in the archaeology of the Middle West.

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Books on American Indians

From time to time people write in to the Secretary of the Society requesting information on books dealing with American Indians and archaeology. We recommend the following, which may be purchased through your local book dealer, or from the Missouri Store, Columbia, Mo.

E. R. Embree: Indians of the Americas
Emily Davis: Ancient Americans
Clark Wissler: The American Indian
Clark Wissler: Indians of the United States
Paul Radin: The Story of the American Indian
F. M. Brown: America's Yesterday
Cole and Deuel: Rediscovering Illinois

The Division of Cultural Materials from Archaeological Sites

by

Robert McCormick Adams, St. Louis, Mo.

It is the experience of many archaeologists that lists of traits formulated without regard to the function that they served in the primitive community gives us an incomplete picture of a culture. Some sort of a natural framework in which we may observe the traits appears to give a more adequate conception of the life of the community. Archaeologists should try to re-create the past in terms which the sociologist and anthropologist can easily interpret.

Certain objects lend themselves very readily to a particular sphere of activity or role to the investigator. For example, the discovery of charred corn remains or of burnt animal bones near fireplaces tells us something of the food-getting activities of the people, or we might consider the construction of houses as revealing to us the special activity of house building or the discovery of pottery fragments telling us the types of containers that were used. Itemization of materials according to similarity of function may be expressed by the following subdivisions: architecture and house life, costume and dress, ceremonial complex, military and hunting complex, economic complex, agriculture and food-getting complex, pottery complex and other objects that do not fit into any of these headings.* We can then tell at a glance just what objects a site or series of sites are deficient in. One group might be wanting in the pottery complex or another might be wanting in the ceremonial complex and thus those of us who are unfamiliar with the cultural descriptions of an area in which we have not specialized can more readily grasp the situation and compare it with our own. Comparisons are thereby facilitated.

What might each such subdivision include? Architecture might conceivably comprise such items as rectangular or round houses, houses set into depressions with depressed entrances, houses with four central posts used as roof supports, storage pits, fireplaces, or evidences of furniture, each with special arrangements depending on the culture examined. Of course this does not attempt to exhaust the possibilities of different types of houses or their interior arrangements. Costume and dress might include such items as shell beads, bone hairpins, perforated stone pendants, copper ear ornaments, fragments of cloth, etc. Under the heading of ceremonial complex we might include such items as moundlike structures made by heaping up earth over successive burials, burials laid on the surface and covered with earth, semiflexed burials, burials with grave goods, pottery with burials, copper with burials, or evidences of log tombs. Under the heading of military and hunting complex might be spearpoints of flint, spearthrowers, perforated stone wrist guards, antler projectile points, etc. The economic and artistic complex could include abrading stones, bone beamers, flint end scrapers, flint flake knives, flint digging hoes, cut shell spoons, etc. Remnants of corn, animal bones, and charred nuts are typical of the agricultural complex. Pottery, by virtue of its complex nature, seems to deserve a special heading, at least in the Mississippi Valley. Under this heading would be included a whole list of items divided according to the nature of the surface finish, the types and manner of decoration, the composition, and the varieties of forms discovered or reconstructed from pottery fragments.

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* The author had modeled this subdivision on a similar subdivision used by the University of Chicago in attempting to analyze archaeological materials from Illinois.

Such a listing seems to be only suggestive. Doubtless there are other groupings that might be added or substituted. However, their use certainly puts life into our archaeological descriptions.

Often we deal with incomplete cultural manifestations in archaeological research. Actually some cultures were very poor. Others have been buried so long that we have very little left in the ground to go by. But there are certain instances where we can be sure that materials are lacking which are still under the ground but are unaccounted for by excavations. A case in point is the well-known Hopewell culture of Ohio. Most all of the materials from sites having the Hopewell culture in Ohio belong to the ceremonial complex. Actually we have very little evidence of the daily lives of the people in comparison to the wealth of ceremonial objects. Such a manifestation therefore appears to be an incomplete representation of the total community in which the people lived. House and village site materials are almost totally lacking. Or again we might note Fowke's stone grave culture in Missouri which appears to belong to the Woodland pattern. Here the ceremonial life is practically the only part of their lives that we are able to reconstruct.** Very few village sites containing such items as evidences of costume and dress or architecture and house life have been investigated. As a matter of fact, it seems to be generally true that descriptions of archaeological cultures in the past have suffered because of the undue emphasis placed in the ceremonial aspects of the lives of the people. No cultural description would be complete unless ceremonial, village and evidences of habitation are clearly recognized through scientific investigations.

The author has appended a list of the division of cultural materials from sites together with the normal expectancy of traits

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** Berry, Wrench, Chapman, Seitz, "Archaeological Investigations in Boone County, Missouri," The Missouri Archaeologist, Vol. 4, No 3, September, 1938.

from the three different types of components: house, village and cemetery.

When archaeologists formulate cultural frameworks such as the one now in common use in the Mississippi Valley it might be desirable to state the probable deficiencies which would be erased only when all possible manifestations are equally considered in the light of excavations.*** It seems to the author that much of the confusion that now exists in the solution of cultural problems in the Mississippi Valley could be ironed out if we would more readily admit that many of the cultures investigated are unequally represented due to the fact that incomplete manifestations have been examined. At present archaeological cultures suffer from overemphasis on analysis of burial mounds. It is well to remember that once a burial ground has been thoroughly investigated and the associated village site is untouched we enhance the chances of a false perspective in archaeology.

Division of Cultural Materials from Sites

Architecture and house life h (v)
Costume and dress v (h) (c)
Ceremonial complex c (v) (h)
Military and hunting complex v (c) (h)
Economic and artistic life v (c) (h)
Agriculture and food-getting activities v (h) (c)
Pottery complex v (c) (h)
Miscellaneous v (c) (h)

Degree of Expectancy of Diagnostic and Characteristic Traits

v: traits expected from village components
c: traits expected from cemetery components
h: traits expected from house or architecture components
( ): indicates secondary presence of above traits arranged in probable order of their importance.

*** A good description of the taxonomic system now in vogue in the Mississippi Valley is in the January 1939 issue of American Antiquity. Another and perhaps simpler explanation is given in the introduction to Chapters in Nebraska Archaeology. This latter, by the way, has some good criticisms of this system. The system is purposely flexible and is continually undergoing the process of revamping.

COUNTY SYMBOLS

The following county symbols are being used by many archaeologists and collectors in the state of Missouri for mapping sites and making records of their finds. Much confusion will be avoided if all students of archaeology would adopt these forms.

Adair	Ad	Harrison	Ha	Pemiscot	Pm
Andrew	An	Henry	He	Perry	Py
Atchison	At	Hickory	Hi	Pettis	Pe
Audrain	Au	Holt	Ho	Phelps	Ph
Barry	By	Howard	Hd	Pike	Pi
Barton	Ba	Howell	Hl	Platte	Pl
Bates	Bt			Polk	Po
Benton	Be	Iron	Ir	Pulaski	Pu
Bollinger	Br			Putnam	Pt
Boone	Bo	Jackson	Ja		
Buchanan	Bn	Jasper	Jp	Ralls	Ra
Butler	Bu	Jefferson	J	Randolph	Rn
		Johnson	Jo	Ray	Ry
Caldwell	Cw			Reynolds	Re
Callaway	Cy	Knox	Kn	Ripley	Ri
Camden	Cm				
Cape Girardeau	Cg	Laclede	Lc	St.Charles	Sc
		Lafayette	Lf	St.Clair	Sr
Carroll	Ca	Lawrence	La	St.Francois	Sf
Carter	Ct	Lewis	Le	St.Genev.	St.G
Cass	Cs	Lincoln	Ln	St.Louis	Sl
Cedar	Ce	Linn	Li	Saline	Sa
Chariton	Ch	Livingston	Ls	Schuyler	Sk
Christian	Cn			Scotland	Sd
Clark	Ck	McDonald	Md	Scott	St
Clay	Cl	Macon	Mc	Shannon	Sh
Clinton	Ci	Madison	Mo	Shelby	Sy
Cole	Co	Maries	Ms	Stoddard	So
Cooper	Cp	Marion	Ma	Stone	Sn
Crawford	Cr	Mercer	Me	Sullivan	Su
		Miller	Ml		
Dade	Da	Mississippi	Mi	Taney	Ta
Dallas	Dl	Moniteau	Mu	Texas	Te
Davies	Dv	Monroe	Mn		
DeKalb	Dk	Montgomery	Mt	Vernon	Ve
Dent	De	Morgan	Mg		
Douglas	Dg			Warren	Wn
Dunklin	Du	New Madrid	Nm	Wash.	Wa
		Newton	Ne	Wayne	We
Franklin	Fr	Nodaway	No	Webster	Wb
				Worth	Wo
Gasconade	Ga	Oregon	Or	Wright	Wr
Gentry	Ge	Osage	Os		
Greene	Gr	Ozark	Oz		
Grundy	Gy				

The Archaeological Exhibit
at the
Missouri State Fair, 1940

Five years ago the Missouri Archaeological Society suggested to the officers of the State Fair that archaeology should be included among its interests, and that opportunity be given to visitors to the Fair to learn something about the aims, methods, and achievements of the science. They were agreeable to this suggestion, and the Society arranged to have an archaeological exhibit as part of the Hobbies Show. Under the direction of Mr. J. B. L. Davis an exhibit was arranged, and a number of collectors, for the most part members of the Society, sent in their most interesting items for display. The interest on the part of the public was immediately manifested, and archaeology soon outgrew the position of stepchild in the family of hobbies. Each year has witnessed an increase in interest and support, for which fact Mr. Davis deserves our thanks.

The archaeological exhibit attempts to do more than to encourage the amassing of a collection of relics. Stress has been placed upon proper cataloguing of specimens, keeping of adequate records, and developing interest not alone in beautiful specimens but in the history that every relic is able to tell. In the awarding of prizes, all of these factors are taken into consideration. We are convinced that the Society has been doing a very valuable piece of educational work in its State Fair display.

The following prizes were given at the 1940 Fair:

Individual collection of Indian relics:

First: Leonard Haslag, Loose Creek, Mo.
Second: George Cramer, R. 3, Sedalia, Mo.
Third: E. O. Van Buskirk, 572 Boyd, Marshall, Mo.

Collection of Boy Scout Troop:

Bobby Johnson, Troop 5, Marshall, Mo.

Collection of relics from a school:

First: Farmers High School, W. L. Elder, Supt., Warrensburg, Mo.
Second: Tavern School, Ernest W. Baker, Jr., St. Albans Farms, Becker, Mo.

Correspondence

Marshall, Missouri
December 31, 1939

To the editor:

.....On the fourteenth of October I showed up at Cahokia State Park as one of the Missourians to attend the meeting of the Federation of Archaeological Societies of the Mississippi Valley.

We met at the Museum of Cahokia State Park. Several talks were made by members who were natives of that district, regarding the history of that vicinity. Then everyone got into cars and we were led by police escort through the park. There were fifty-two in all on the tour. Our next stop was the old Cahokia court house, which is being reconstructed. A great deal of the material from the original structure is being used. The town of Cahokia has been a continuous settlement since 1699. Talks were made concerning the old site and community. After leaving there we stopped at the old brick mansion, where Lafayette was entertained in 1825, inasmuch as there was not a house in St. Louis large enough at the time. The people of this community are to be congratulated for their interest in preserving old historical sites.

The next stop was at Le Forte de Chartres, which was established in 1720, and used until 1765. There was an excellent museum at this state park. We were served an excellent box lunch, following a trip through the museum. From the state park we drove into Prairie du Rocher, an old French town founded in 1722. We drove to Conner's Store and asked Mr. Conner to tell us the history of the town, which he, a typical Irishman, did in a most interesting manner.

We next drove to Fort Kaskaskia State Park. The fort was begun in 1734 and completed in 1736. It is a beautiful site overlooking the Mississippi. Just below the park is Pierre Menard's old homestead, built in 1802.....We continued on to Giant City State Park, a few miles south of Carbondale, arriving there after six o'clock, rather later than we expected. After being assigned to our cabins, where we were to spend the night, we all prepared for a big dinner.....This park comprises about 1916 acres, and was acquired by the state in 1927. The park preserves a typical section of the Illinois extension of the Ozark Uplift, in a setting more suggestive of the ancient Worn Mountains than any other the Prairie State has to offer.....The Lodge is a commodious structure of native stone and logs.....After dinner there were talks by a number of speakers - some giving us an account of the history of the region, and others on the features of the park. Other speakers included Dr. J. B. Ruyle, Champaign, Ill., President of the Society; Col. Lucien Beckner, State Archaeologist of Kentucky, and Col. Fain King, of Wickliffe, Kentucky.

After breakfast we resumed our tour, stopping first at the Mill Creek Quarries. These were used by the Indians, and were located on bluffs very similar to our own.....

The next stop was for lunch at Cairo. There were many things of interest to be seen here, but everyone was eager to get over into Kentucky to see the Ancient Buried City. We were not disappointed, for Mr. and Mrs. King have indeed done a good job there. The manner in which the site has been preserved, and the time, money, and effort that have been expended upon it make it a most memorable sight.

After spending a few hours at the Wickliffe site we found it was getting late, and our party, and Mr. and Mrs. Frank Foster, Sr., of Springfield, Missouri, started back for St. Louis. Mr. Trowbridge, whom we always think of as a Missourian although he lives in Bethel, Kansas, boarded a train for home.

We can all say that we had a fine trip, very worth while, and a success in every way.

J. B. L. Davis

Editor's note: Mr. Davis's letter describes the first meeting of the Federation of Archaeological Societies in the Mississippi Valley, of which the Missouri Archaeological Society is a member. We have deleted a portion of his letter, especially the amusing paragraph in which he tells of Mr. Trowbridge's encounter with a bull. Mr. Trowbridge, it seems, cannot resist the temptation to look over every likely site in hopes of finding relics. On one site he was successful in gathering a bag full, but a bull which he had not seen created a situation in which Mr. Trowbridge had to choose between his relics or his life, and he wisely chose the latter. We thought it best not to publish this part of Mr. Davis's letter, for Mr. Trowbridge is a loyal member of the Missouri Archaeological Society, and we dare not incur his displeasure.

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St. Louis, Missouri

To the editor:

On July 31, 1937, while excavating a stone vault burial crypt located on the bluffs of the Missouri River, in St. Charles County, I unearthed a humerus which, in my opinion, gives indisputable evidence of having been broken and set, and that complications and infection followed the operation.

This humerus shows evidence of having been broken about half way between the joints, and apparently was a compound fracture. An attempt was made to set the bone, as it is quite straight when held in an edgewise position, but when lying flat is a good half inch out of line. A vent for the drainage of pus had opened about six and a half inches from the shoulder. On the interior of the bone is a pus cavity about one inch long and nearly half an inch in diameter. The bone itself has been shortened over an inch, probably due to the crude method of bone setting.

From all appearances the rest of the bone is normal and the infection appears to have concentrated itself entirely upon the one spot and not spread to any other portion of the bone. In all probability this infection occurred and lasted some time after the fracture of the bone, as the break itself is completely knit. With the exception of the joints, the average diameter of the humerus is seven-eights of an inch, while the area surrounding the fracture is one and one-half inches.

There have been other records of bones having been found which show effects of primitive surgery upon them, but to my knowledge no others show a condition where the bone has become infected following such an operation. I have this particular specimen in my possession together with photographs and suitable proof as to its authenticity.

Louis H. Daerr

- -

Detroit, Michigan

To the editor:

.....I am sure that there are many members who share with me the thought that in the Bulletins alone we are getting more than our dollar's worth, and that we would like to contribute more substantially to the maintenance of the organization. If it is not advisable to raise the annual dues, I wonder how many would like to become voluntary contributing members at two dollars a year? A correspondence section of the Bulletin would provide a forum for the discussion of such a proposal....In accordance with the above, I am enclosing a check for two dollars for the extension of my membership for one year.

I have another plan in mind. I would like to propose it for discussion. The membership, probably, contains many who owe their interest in archaeology to the boyhood trait of picking up arrowheads. Among their fondest memories are those of the days spent on their favorite collecting grounds, and they all remember the locations of the sites. If the knowledge of the group could be pooled and catalogued, it would form a valuable addition to a survey of the State, and each member participating would have the satisfaction of having contributed something of value. If it should seem advisable to undertake some such plan, it could be arranged by preparing mineographed cards of sheets adopted from those figured by Cole and Deuel in Rediscovering Illinois, Fig. 1, Page 23.

W. L. Brosius, M. D.

THE
Missouri Archaeologist

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The MISSOURI ARCHAEOLOGIST

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1940 - Vol. 6, Nos. 1, 2

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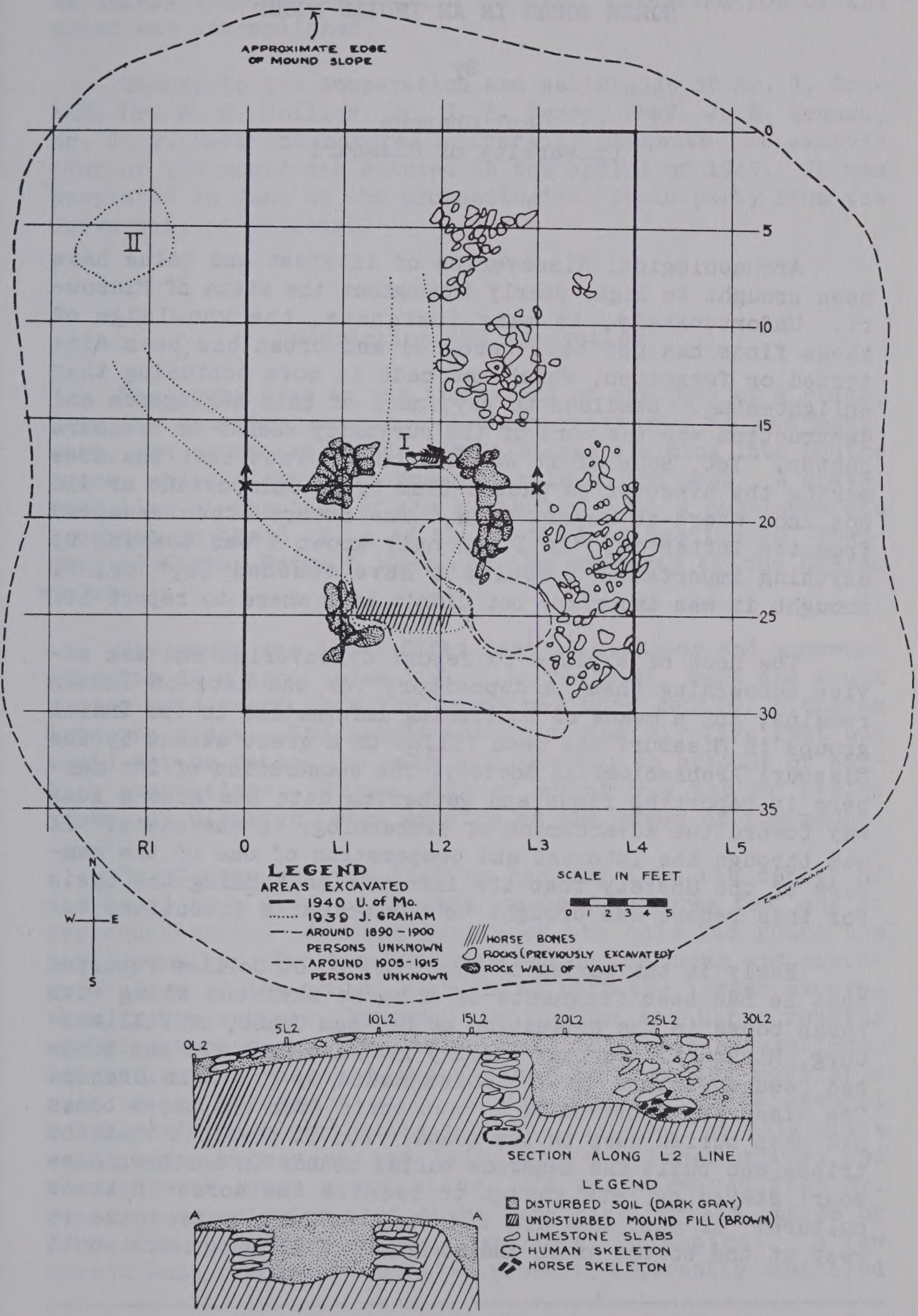
The Seventh Annual Spring Conference of the Society will be held at the Adult Study Center, 471 Lake Ave., St. Louis, on Saturday, May 17, 1941.


APPROXIMATE EDGE OF MOUND SLOPE
0
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35
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0
L1
L2
L3
L4
L5
N
W
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S
LEGEND
AREAS EXCAVATED
1940 U. of Mo.
1939 J. GRAHAM
AROUND 1890-1900 PERSONS UNKNOWN
AROUND 1905-1915 PERSONS UNKNOWN
SCALE IN FEET
0 1 2 3 4 5
HORSE BONES
ROCKS (PREVIOUSLY EXCAVATED)
ROCK WALL OF VAULT
0L2
5L2
10L2
15L2
20L2
25L2
30L2
SECTION ALONG L2 LINE
A
A
LEGEND
DISTURBED SOIL (DARK GRAY)
UNDISTURBED MOUND FILL (BROWN)
LIMESTONE SLABS
HUMAN SKELETON
HORSE SKELETON

Fig. I - Ground plan and Cross Sections

HORSE BONES IN AN INDIAN MOUND

By

Carl Chapman
University of Missouri

Archaeological discoveries of interest and value have been brought to light yearly throughout the state of Missouri. Unfortunately, in many instances, the knowledge of these finds has not been recorded and often has been distorted or forgotten, which has made it more confusing than enlightening. Needless to say, much of this negligence and destruction was the work of the curiosity seeker or treasure hunter. Yet, some of it was due to the fact that the ones making the discoveries passed them by as unimportant or did not know where to report them. The retort often received from the latter is, "If I had only known I was tearing up anything important, I wouldn't have touched it," or, "I thought it was important but didn't know where to report it."

The need of a place to report discoveries and ask advice concerning them, a depository for the data on Indian remains, and a means of publishing information in the Indian groups in Missouri has been filled to a great extent by the Missouri Archaeological Society. The cooperation of its members in reporting finds and gathering data has gone a long way toward the advancement of archaeology in the state. It was through the interest and cooperation of one of the members of the Society that the information forming the basis for this report was brought to the writer's attention.

Early in the spring of 1940, Mr. H. C. Collier reported that he had seen fragments of a horse skeleton along with human bones in the collection of Mr. Sam Crane, of Williamsburg, Missouri. Further inquiry revealed that all the bones had been unearthed in an Indian mound by Mr. John Graham. The discovery appeared to be authentic, for the horse bones had been buried deep in the mound. Was it possible that the tribes who built the numerous burial mounds in northern Missouri stayed on late enough to receive the horse in their culture? If not, how did the remains of a horse come to rest at the bottom of an Indian mound? All assumptions would be purely speculative until a thorough investigation of the mound was accomplished.

Thanks to the cooperation and assistance of Mr. J. Graham, Mr. H. C. Collier, Dr. J. B. Berry, Prof. J. E. Wrench, Mr. J. P. Mack and several university students the excavation of the mound was started in the spring of 1940. It was completed in June by the archaeological field party from the University of Missouri.[1]

Description and Excavation

The mound lies in the timberland on the peak of a ridge, near its southern extent. A short distance to the east, west, and south are rather abrupt slopes draining into Loutre Creek, which flows south one-half mile to the east. A gravel road lies at the base of the western slope. A more accurate location is the S. E. $\frac{1}{4}$ of the N. W. $\frac{1}{2}$ of Section 28, Township 48 North, Range 6 West, on the property of the Graham heirs.

The mound was about fifty feet in diameter and somewhat circular in shape. (See Fig. I.) The east, west and south slopes were steep, but the north was more gentle, blending into the ridge. The height was approximately five feet but could not be determined with any accuracy on account of earlier excavations. Trees, one of which was ten or twelve inches in diameter, were growing on the edges of the mound.

Mr. Graham related that he had dug into the center of the mound to a depth of two and one-half to three feet and at the southernmost edge and bottom of the hole had found the horse remains. Two trenches were dug on the north and northwest sides of the mound, connecting with the larger excavation in the center. Finding nothing but the horse remains and limestone rocks, Mr. Graham refilled these excavations. Before leaving, however, he decided to try once more at a spot on the northwest slope of the mound, where several large rocks were protruding from the surface. At this place human bones were revealed lying in rock lined graves and covered with large stone slabs. It was surmised from Mr. Graham's description that there were five burials, three or four of which were primary, extended and supine. A few burned bone fragments were also present, apparently scattered among the other burials. Some of the slabs lining the graves were burned to a deep red color. (See Fig. I.)

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[1] The author wishes to thank the Graham heirs for permission to work the site, and acknowledge the fine illustrations drawn by Mrs. Elsie H. Froeschner.

The places dug by Mr. Graham were first reopened; then a large part of the mound was staked out into five foot squares. A ten foot trench, started on the north edge of the mound, was brought south to a rock wall about two and one-half feet high and two feet wide, made of rough limestone slabs. Upon following this wall from both inner and outer sides, it was found to be a well-made enclosure, the inside of which was six feet wide and eight feet long, the long axis lying north to south. The southeast corner was missing and the south side appeared to be a jumbled mass of earth and stones. Two breaks were present in the wall, one in the north and one in the west, both made by the trenches of Mr. Graham. (Fig. I.)

Piles of stone were uncovered near the surface on the northeast and east slopes of the mound. These evidently had been thrown aside from some former excavation in or near the rock wall or vault. A few fragments of human bones and leaf mold lay among these rocks. (Fig. I.)

Fragmentary horse bones and a tooth were nearly three feet from the surface, beneath the mass of earth and rocks at the south end of the mound. Much charcoal was with or near the bones.

All of the south and southeast part of the mound was carefully excavated, profiles being taken whenever it was deemed advisable. These profiles revealed that this south end had been dug many years ago and then refilled. The southeast corner and center of the mound had also been pitted but had been filled only slightly by erosion. The disturbed areas were set off by the dark gray color of the soil which made a striking contrast to the light brown soil of the undisturbed mound fill. One of these two disturbances had probably been extended to include the inside of the rock enclosure, but Mr. Graham's excavations had obliterated any evidence that might have supported this contention.

A primary supine burial was extended, with skull to the east, just beneath the north vault wall. The right pelvic or innominate bone, all of the right leg bones, and the lower left leg bones were missing. No grave goods were present and the remains were in such a poor state of preservation that none could be saved. This burial apparently had been made just prior to the erection of the rock wall.

A few flint flakes, ground pieces of hematite, two fragments of flint projectile points, and several fragments of

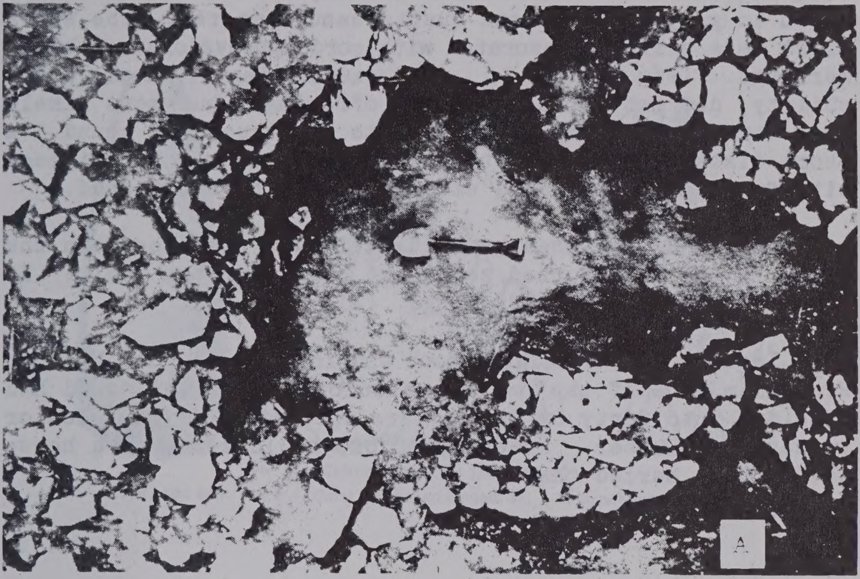

Plate 1 - Indian Mound in Montgomery County
A - View of mound during excavation
B - Burial described on page 5

pottery were encountered here and there throughout the mound fill and disturbed areas. The pottery sherds were reddish-brown to gray in color and quartz sand tempered. The exteriors were plain or decorated with cord impressions, or brush markings. (Fig. II: 2, 3, 4.) These artifacts, in all probability, did not represent grave offerings, but more likely were contained in the earth used to construct the mound. A short distance to the north there was evidence of a village site from which the mound earth may have been obtained.

One small polished hematite celt was found between the rocks in the undisturbed northeast corner of the vault. It may have been a grave offering. (Fig. II: 1.)

Inquiry in the neighborhood and information from Mr. Ben F. Graham, one of the owners, disclosed that the mound had been dug into forty or fifty years ago and again some ten or twenty years later. However, no one could remember a horse having been buried there.

Conclusion

The construction of the mound was similar to that of mounds found elsewhere in northern Missouri.[2] Although the information was meager, the burials and the scattering of artifacts in the mound fill, as well as the construction, suggested that the mound was a component of the "Woodland Pattern."

The history of the site may have been as follows: It was built by an Indian group for burial purposes at some unknown time, but probably before 1700. The south end and part of the center of the mound was dug into some time around 1890 to 1900, possibly by Mr. D. F. Graham, who did considerable excavating in the vicinity at about that time. The earth and stones from the excavation were thrown to the east, north and south, the hole being left open. Some time later the body of a horse was placed in the hole. Perhaps, by some chance, a horse had died near the mound and was dragged to the hole, where, judging by the charcoal with the bones, it had been covered with brush and burned. However, the burning was incomplete, for the bones showed no evidence of firing. As very few of the bones were articulated and several of them, including the skull, were missing, it was surmised that they had been picked clean and scattered to some

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2. Berry, Wrench, Chapman, Seitz: Archaeological Investigations in Boone County. The Missouri Archaeologist, Vol. 4, No. 3. 1938.

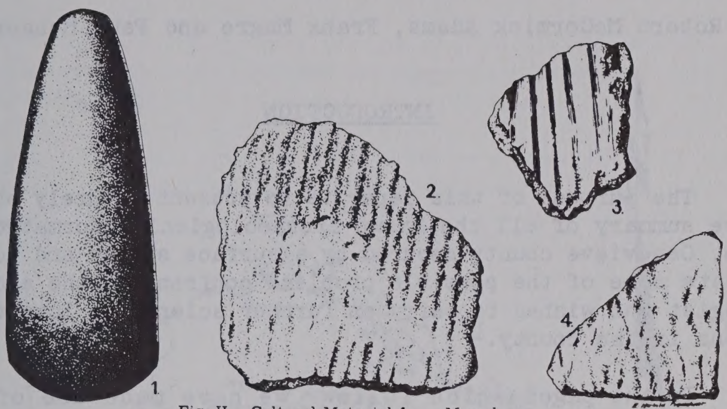

Fig. II - Cultural Material from Mound
1. Polished celt. 2,& 4. Cord roughened potsherds. 3. Brush marked sherd

extent by scavengers, before the mound was again pitted. This second dig, some time between 1910 and 1915, included the southeast corner of the mound and part of the center. The dirt and stones from this dig were thrown south into the old excavation, and accordingly, covered the horse bones to a considerable depth. The hole was not refilled, except by erosion, and so depressions were left in the east center and southeast surface of the mound.

In 1939 part of both the old excavations were reopened by Mr. J. Graham, resulting in the discovery of the horse bones deep within the mound. This, of course, led to the final excavation in 1940, which, at any rate, proved that the horse was intrusive.

It is known that some of the later Indian groups did bury horses and other animals with their dead. If the discovery of these horse bones, therefore, had not been reported, and if our final excavation of the mound had not been undertaken, it is likely that an entirely erroneous interpretation of this site would have become circulated. We are convinced, now, that the builders of the mound had no knowledge of the horse or of other culture traits of white civilization.

ARCHAEOLOGICAL SURFACE SURVEY OF STE. GENEVIEVE COUNTY, MO.

By

Robert McCormick Adams, Frank Magre and Paul Munger.

INTRODUCTION

The purpose of this paper is to present a purely objective summary of all the known archaeological information of Ste. Genevieve county secured by a surface survey and to indicate some of the possible problems confronting the archaeologist who wishes to carry on further scientific investigations in the county.[1]

In the pages which follow we have made use of the McKern classificatory system and the terminology suggested by Cole and Deuel. The reader should refer to Cole and Deuel's Rediscovering Illinois for an account of both of them.

It should be borne in mind that our investigations consisted of examining surface finds or, as in the case of burials, cuts in the surface of the earth which were the results of building operations.

Ste. Genevieve county (Symbol: St. G) is situated in the southeastern part of Missouri and is one of the Mississippi River counties. It is 40 miles south of St. Louis and extends for a distance of 25 miles along the Mississippi River. It lies within the Ozark Plateau Region and is largely made up of hilly uplands. The southeastern portion of the county is in the bottom lands of the Mississippi flood plain. The only other lowlands are in the valleys of the several streams which are tributaries of the Mississippi The location of the archaeological sites are on the hills, on the second and third terraces of the stream valleys and on the dune-like loess or loam deposits which are common in the broader valleys. We believe that only a small portion of the total number of sites have been found but a representative number have been located.

Only one attempt, that of D. I. Bushnell, has been made to analyze the archaeology of this region. Mr. Bushnell's

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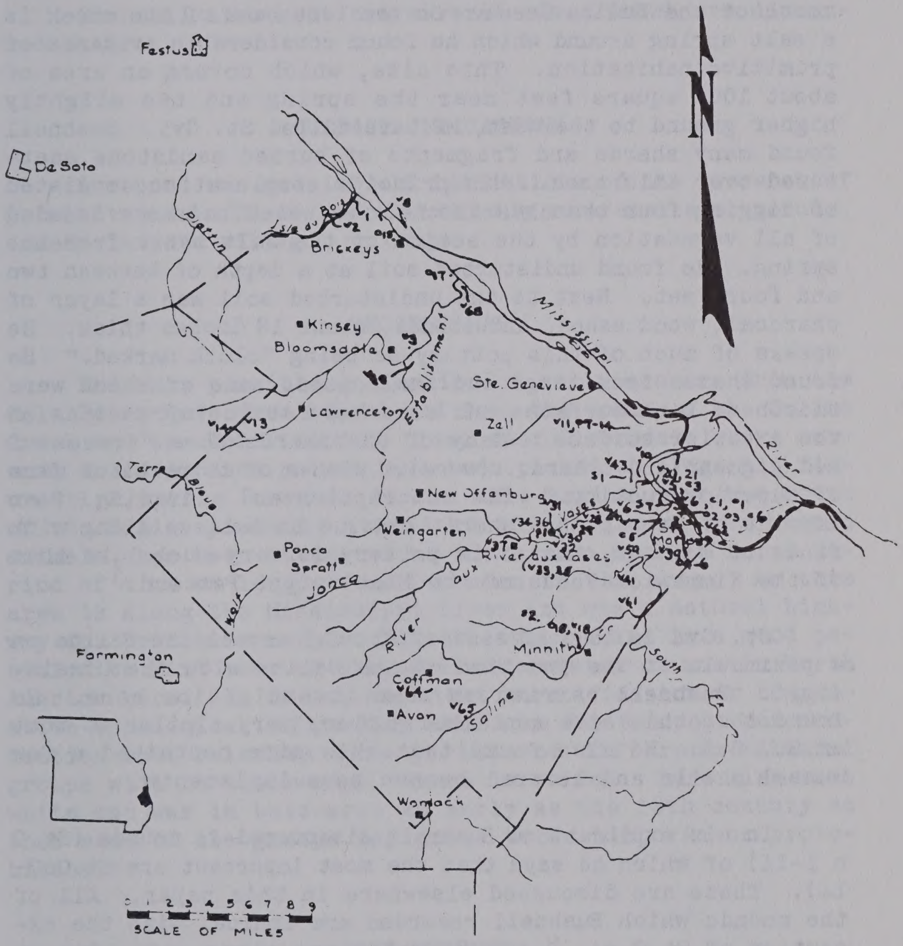
[1] The observations in this paper were carried on as a part of the investigations of the Academy of Science of St. Louis-W. P. A. expedition, co-sponsored by the Missouri Resources Museum.


N
Festus
De Soto
Plattin
Isle du Bois
Brickeys
Kinsey
Bloomsdale
Establishment
Mississippi
River
Ste. Genevieve
Lawrenceton
Zell
Terre Bleue
New Offenburg
Weingarten
Ponce
Spratt
Jonca
River aux Vases
Wolf
Farmington
Minnith
South Fk.
Coffman
Avon
Saline
Womack
0 1 2 3 4 5 6 7 8 9
SCALE OF MILES

ARCHAEOLOGICAL SURFACE SURVEY
STE. GENEVIEVE COUNTY, MISSOURI.

publication "Archaeological Investigations in Sainte Genevieve County, Missouri"[2] was an aid to the present investigation. Several of the sites which are indicated in this report have been investigated by Mr. Bushnell.

Bushnell's most extensive investigation was at the mouth of the Saline Creek. On the left bank of the creek is a salt spring around which he found considerable evidence of primitive habitation. This site, which covers an area of about 1000 square feet near the spring and the slightly higher ground to the west, we have called St. Gv5. Bushnell found many sherds and fragments of burned sandstone scattered over this area. His principal exploration consisted of digging four trenches in the area which had been denuded of all vegetation by the action of the salt water from the spring. He found undisturbed soil at a depth of between two and four feet. Next to the undisturbed soil was a layer of charcoal, wood ashes, and sherds, about 18 inches thick. He speaks of much of this pottery as being "cloth marked." He found sherds from large and small pots, some of which were smooth on both surfaces and some had fabric impressions on the exterior surface. Many of the sherds bore "traces of red pigment and others...(were)...pieces of thin, black ware of superior quality." His description and a drawing of an imprint of fabric on a sherd leads us to believe along with finds of our own, that this pottery is very much like that of the Kimmswick Focus of the Mississippi Pattern.[3]

St. Gv4 is located east of St. Gv5 across the Saline on a peninsula at the junction of the Saline with the Mississippi. Bushnell carried on some investigation here. He found that this site contained pottery very similar to that of St. Gv5. He also found that this site contained a few mussel shells and several broken bone implements.

In his explorations Bushnell discovered 14 mounds (St.G o 1-14) of which he says that the most important are St.Go7-14). These are discussed elsewhere in this paper. All of the mounds which Bushnell recorded are conical with the exception of St.G.o4, 5 and 6, which are elongated. One of those is truncated. None of the mounds which he excavated contained burials or evidences of fire.

Bushnell excavated two cemeteries (St.G.c5,c6). One of the cemeteries was interesting because it consisted of four cist graves each containing several disarticulated skeletons. Each grave contained at least one small pot which was apparently placed in the grave as a part of the funeral ritual. The flat stones which formed the sides and bottoms of these graves had been placed end to end.

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[2] Proceedings of the United States National Museum, Vol. 46, pp. 641-668, 1914.

[3] Adams, Robert McCormick, "Archaeological Investigations in Jefferson County, Missouri. Transactions Academy of Science of St. Louis, Vol. 30, No. 5, 1941.

Bushnell also mentions several caves which are discussed later.

SURFACE INDICATIONS

A record was made of all indications of the presence of primitive man. These included chiefly rock shelters, mounds, cemeteries and villages or camps.

ANCIENT MAN

The only possible indication of early man are from the Salt Peter Cave (see below) and from the mouth of the Saline Creek and the Establishment Creek near Bloomsdale where several concave based points have been picked up (Page 14, figures 1,2,3,4). Inasmuch as the salt spring near the mouth of the Saline probably attracted animals, man, who hunted animals, has been attracted to those same springs for a period of time as long as he has been in the area. As this area is along the Mississippi River and was a natural highway for primitive man, we believe that we are in a good position to find some of the earliest remains of man in North America here. It is believed that stratification or comparative typological information will some day bear out our contention that relative time periods of different cultural groups will be discovered. There is evidence here also that white man was in this area as early as the 18th century so that some of the groups may prove to be historic or protohistoric.

ROCK SHELTERS

There are two types of rock shelters in Ste. Genevieve county, those formed in limestone which are often related to sinkholes and those formed of sandstone as a result of the weakening of the underlying limestone due to stream action. Of these the former is the most common. The openings of these rock shelters vary in width from 8 feet to 40 feet. Saltpeter cave (St.Gs2) which has been formed in limestone is probably the largest cave in the county. The only indication of primitive occupation in it is a fireplace which was noticed in a cut three inches beneath the surface or floor in what appears to be an old salt fill.[4]

Gilliam's Cave (St.Gs1) which has also been formed in limestone has a rather small opening but near it is a natural bridge under which were found several indications of primitive occupation. Bushnell reports having found wood ashes and charcoal, chips of flint or chert and "a few arrowheads" at this site. When we visited the site we found two sherds, one clay tempered and one shell tempered. The latter sherd was very similar to those which had been found at St.Gv5 at the mouth of the Saline since it was quite thick and had the impressions of fabric on it. Immediately west and northwest of the town of Ste. Genevieve are several other caves which are of sinkhole origin. No indications of primitive occupation have been found on the surface of these but all of them may contain aboriginal remains because recent fill is present in each of them. Bushnell reported a small cave near the left bank of the Saline which had been formed in limestone by a small stream. On the floor of the cave he found thirteen petroglyphs of various designs. Upon investigating this cave we found that only eight of them were still discernible (27 years after Bushnell had investigated the cave).

MOUNDS

Mounds are not particularly plentiful in this county and only 27 of them have been discovered to date. They are generally composed of soil taken from the adjacent surface. Most of the mounds are conical and rather small, not being over 10 feet high and 60 feet across (Plate I, A, Page 16). Many of these are on top of high ridges and are Woodland but some are in the bottomlands or on low ridges and may belong to the Mississippi Pattern. Less common than the conical mounds made of earth are those which are made of stone covered with earth. This type of mound is typified by St.Go27. This mound is two feet high and about 18 feet in diameter. Differing from the conical mounds are three elongated mounds (St.Go4,5,6) which are situated on a hill on the right bank of the Saline about one mile upstream from its mouth. Two of these are about 10 feet high, 100 feet long and 40 feet

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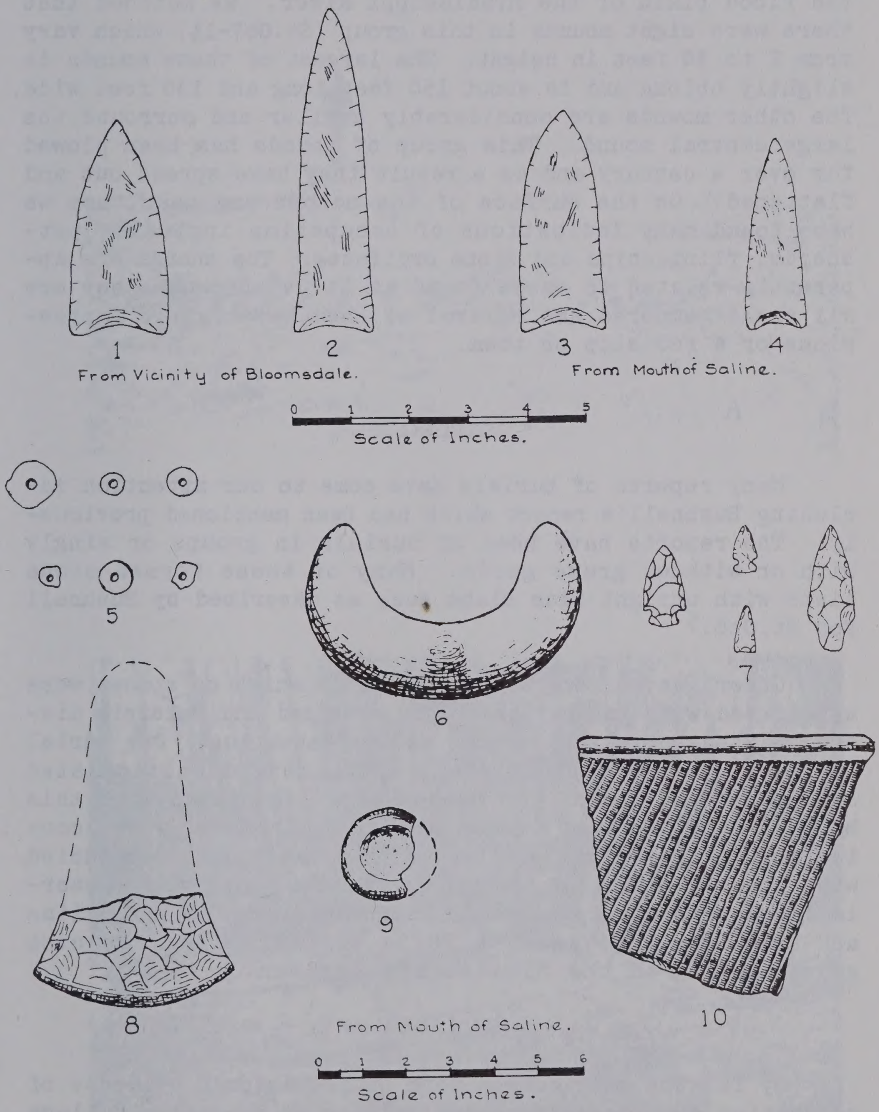
[4] Dr. Carey Croneis of the Department of Geology, Universsity of Chicago, has carried on some investigations at this site. He claims considerable age for human deposits. Croneis, C., Possible Evidence of Prehistoric Man in Southeastern Missouri, Bull. of the Geol. Soc. of America, vol. 50, no. 12, pt. 2, Dec. 1, 1939. It is our understanding that Dr. Croneis is to publish more fully on this subject shortly.


1
2
3
4
From Vicinity of Bloomsdale.
From Mouth of Saline.
0 1 2 3 4 5
Scale of Inches.
5
6
7
8
9
10
From Mouth of Saline.
0 1 2 3 4 5 6
Scale of Inches.

Cultural Material from Ste. Genevieve County wide. The other was a truncated mound (Plate I, B). These mounds may have been pyramidal at one time. Perhaps the most outstanding group of mounds are those located in the "Big Field" just south of the village of Ste. Genevieve on the flood plain of the Mississippi River. We noticed that there were eight mounds in this group (St.Go7-14) which vary from 2 to 30 feet in height. The largest of these mounds is slightly oblong and is about 150 feet long and 130 feet wide. The other mounds are considerably smaller and surround the large central mound. This group of mounds has been plowed for over a century and as a result they have spread out and flattened. On the surface of the mounds and near them we have found many indications of occupation including potsherds, flint chips and stone artifacts. The sherds are apparently related to those found at St.Gv5 because they are all shell tempered and several of them have fabric impressions or a red slip on them.

CEMETERIES

Many reports of burials have come to our attention including Bushnell's report which has been mentioned previously. The reports have been of burials in groups or singly with or without grave goods. Many of these formed stone cists with upright side slabs such as described by Bushnell for St.Gc6.[5]

Other graves have been reported in which no stones were associated with the burials. Only extended and multiple disarticulated burials have come to our attention. One burial (St.Gc1) was a group burial in which many disarticulated skeletons were found. No stones were associated with this burial and it covered a large area. Some of the graves containing disarticulated skeletons have had whole pots buried with them as a part of the funeral ritual. Several cemeteries have been found and reported from along both the Saline and the River aux Vases. It is probable that the cist graves belong to the Mississippi Pattern.

VILLAGES

By far the most common form of prehistoric evidence of occupation are the surface indications of primitive village sites. We have found over 70 of these to the present time but these probably represent only a small number of such cultural manifestations. Village and camp sites have been found on the second and third terraces of the streams, on the loess or loam dunes in the valleys and on ridges over-

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[5] Op. cit, p. 662.

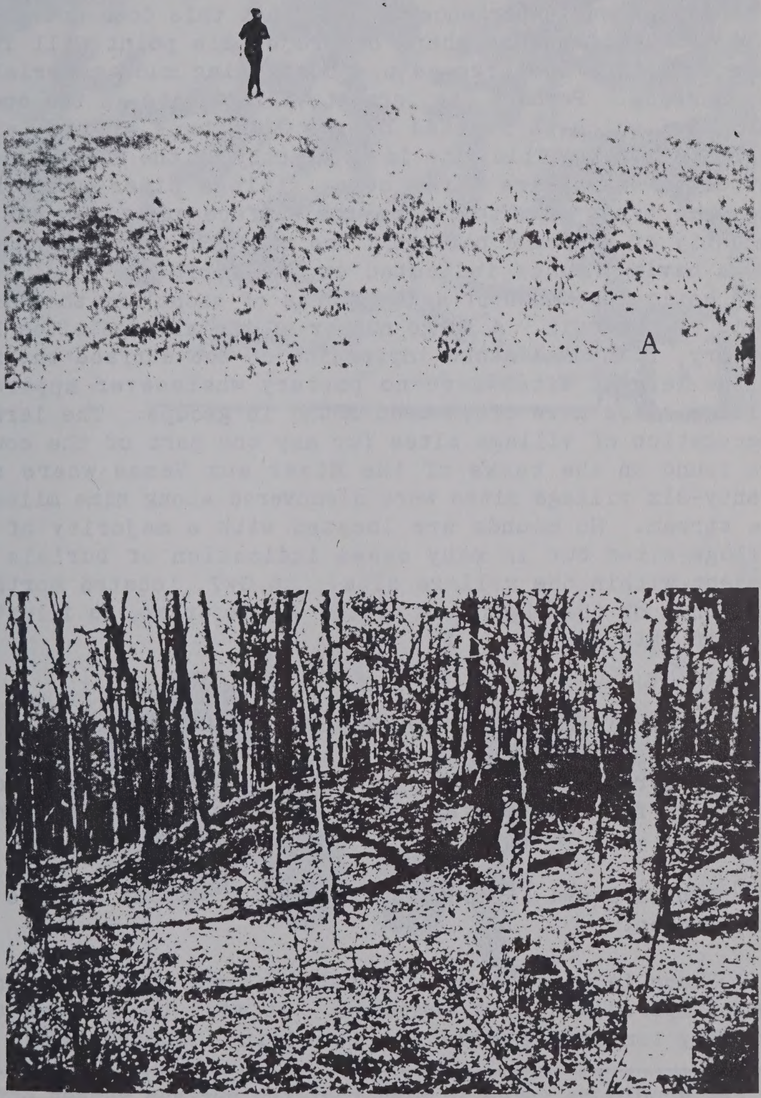

Plate I - Mounds in Ste. Genevieve County

looking streams. Village sites are indicated mainly by the abundance of charcoal, shells, chips of flint, stone implements and potsherds. The distribution and concentration of these materials over the surface of the ground often indicate the size of the site which varies from 100 square feet to several acres. While the size of the site is often indicated by the amount of material on the surface of the ground, it has been our experience to find that this does not always hold true. Often one sherd or projectile point will indicate a village as large as one containing much material on the surface. Perhaps the largest village site in the county is St.Gv5 which is located on the left bank of the Saline near its mouth. This site is apparently of the Mississippian Pattern. Nearby are three other village sites which have the same types of material on the surface and which are apparently of the same pattern. One site (St.Gv3) was reported as having houses indicated on the surface. The houses were noticed because of aggregations of stone and the darker stain of the soil. A large number of the village sites have pottery, flint and stone implements on the surface but many of the largest sites have no pottery whatsoever apparent. Village sites have often been found in groups. The largest aggregation of village sites for any one part of the county was found on the banks of the River aux Vases where some twenty-six village sites were discovered along nine miles of the stream. No mounds are located with a majority of the village sites but in many cases indication of burials are present within the village site. St.Gv7, located north of St. Marys on the right bank of the Saline Creek, is illustrative of this.

TRAIT ANALYSES AND CULTURAL RECONSTRUCTION

Pottery fragments, bone, shell and stone artifacts picked up from the surface were analyzed in a preliminary manner.[6]

Tables I and II contain the results of our surface investigation.

There is a division of potsherds into shell tempered, clay tempered and grit tempered. It will be noticed that the clay tempered sherds are found in a minority but are

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6. It should be borne in mind that the surface survey offers only clues as to the existence of culture groups of various types and cannot be considered final. There is often more than one cultural group or component indicated from the surface of any one site.

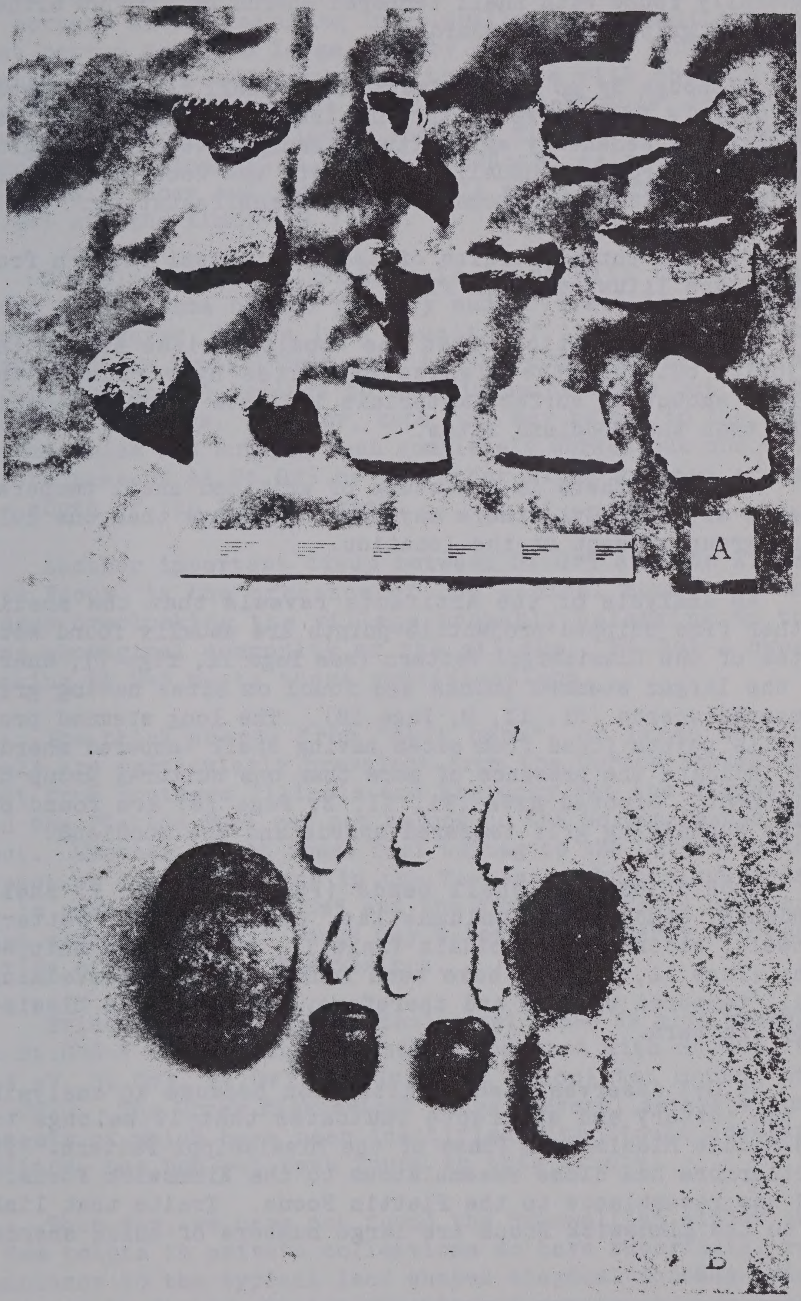

Plate II - Cultural Material from
Ste. Genevieve County

generally found with shell tempered sherds or without either shell or grit tempered sherds.

Although by no means always true, shell tempered sherds are usually indicative of the Mississippi Pattern which was primarily a sedentary agricultural manifestation while grit tempered sherds are usually found with the Woodland Pattern which was primarily a nomadic hunting manifestation.

Typical pottery traits of the Mississippi Pattern from St.Gv5 are illustrated in Plate II, A.

It will be noticed that the Woodland sites are in the majority but that the Mississippi sites by virtue of the larger amount of surface materials indicate larger communities than the Woodland sites.

Wherever there is a mixture of grit and shell tempered sherds as at St.Gv11 there may have been more than one culture group present at the location.

An analysis of the artifacts reveals that the small, rather fine chipped projectile points are usually found with sites of the Mississippi Pattern (see Page 14, fig. 7), whereas the larger stemmed points are found on sites having grit tempered sherds (Pl. II, B, Page 18). The long stemmed projectile points found from sites having shell tempered sherds may indicate the presence of more than one cultural group or component. Grooved axes (Pl. II, B, Page 18) are found on sites containing grit tempered sherds and are Woodland.

Such objects as shell beads (Page 14, fig. 5) shell pendants, conch shell columnellae, chisel celts, pottery trowels, biconcave discoidals (Page 14, fig. 9) and chipped hoes (Page 14, fig. 8) have been found on sites containing shell tempered pottery and therefore, belong to the Mississippi Pattern.

St.Gv5 deserves special attention because an analysis of the pottery and artifacts indicates that it belongs to the Middle Mississippi Phase of the Mississippi Pattern. It furthermore has close resemblances to the Kimmswick Focus,[7] and has resemblance to the Plattin Focus. Traits that link it to the Kimmswick Focus are large numbers of thick sherds

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7. Adams, Robert McCormick, "Archaeological Investigations in Jefferson County, Missouri," Transactions Academy of Science of St. Louis, Vol. 30, No. 5, 1941.

often textile impressed (Page 14, fig. 10), a large variety of pottery shapes including large shallow bowls, bottle forms, flat bottom forms, a large variety of ollas or jars, effigy flange bowls, "seed" bowls and the plate with chevron designs. Appendages include round "door knob" lugs, loop handles with "ears," lip flanges and duck flanges. Shell beads, conch shell columnellae, shell pendants, celts, biconcave discoidals, hoes and pottery trowels are also found at both St.Gv5 and the Kimmswick Focus.

The clay tempered pottery is found with the Plattin Focus as are some of the pottery and artifact items listed above. However, there is a paucity of thick sherds from large shallow bowls ("Salt pans"). One component or cultural group from St.Gv5 belongs to the Kimmswick Focus but not to the Plattin Focus. However, both foci may belong to the same aspect which has not yet been completely worked out and both may be present at St.Gv5 or the other sites grouped around the mouth of the Saline Creek.

Another important tieup between St.Gv5 and the Kimmswick Focus is the presence of low conical mounds on low ridges overlooking the village probably belonging to the same aboriginal community as the village. St.Gol-4 overlooking St.Gv5 meets these specifications.

The thick sherds from "salt pans" or large shallow bowls are particularly prevalent from the Gordon-Fewkes Aspect from Southern Illinois and Kentucky but the Kimmswick and the Plattin Foci may not belong to the Gordon-Fewkes Aspect. Whether or not these foci belong to the Gordon-Fewkes Aspect or its equivalent in the Tennessee-Cumberland area, it is possible that St.Gv5 and the Kimmswick Focus and perhaps also the Plattin Focus may belong to an early manifestation of the Middle Mississippi.

Evidence of the Middle Mississippi Phase is also present at St.Gv6-7 and possibly mounds associated with St.Gv5, v6 and v7, St.Gv3, St.Gv7, St.Gv11 and associated mounds and St.Gv20. The Upper Mississippi Phase, several separate components of which have been identified with Siouan speaking Indians, has not yet been found in this county.

Thus far, we have not found the Hopewellian either but a few points in private collections do have superficial resemblance to the typical leaf shaped diagonal notched point so typical of this aboriginal cultural group.

Two objects from the vicinity of Bloomsdale are of interest (Pl. III, Page 21). One of these is a large copper axe and the other is a projectile point with long narrow

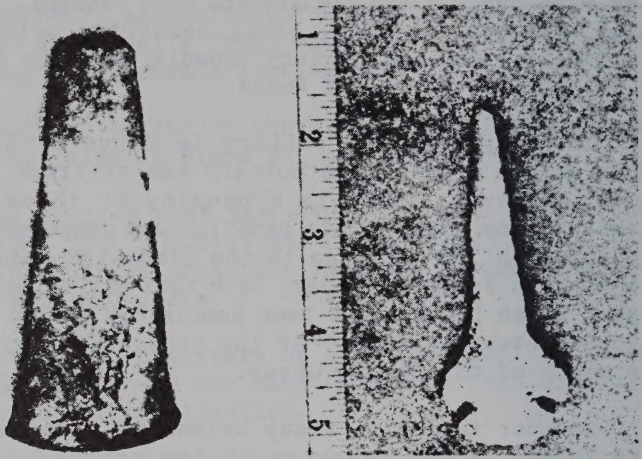

Plate III - Artifacts from Vicinity of
Bloomsdale, Ste. Genevieve County

body and a diagonal notched broad base. The latter highly distinctive form has been found in numbers in a pre-Caddoan culture in Arkansas.[8]

An object from the mouth of the Saline is also interesting. It is a lunate bannerstone (Page 14, fig. 6). These three objects are not yet capable of being identified with any specific cultural groups.

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[8] See Plate 11 of Volume 8, Bulletin of Texas Archaeological and Paleontological Society, 1936, "Discoveries Indicating a Pre-Caddo Culture on Red River in Arkansas," by H. J. Lemley, and the "Ceramic Relationships of the Pre-Caddo Pottery from the Crenshaw Site," by S. D. Dickinson.

POTTERY TRAITS

		GRIT TEMPERED			SHELL TEMPERED				CLAY TEMPERED						
SITE	TOTAL NUMBER OF SHERDS	NO. SHERDS	CORD MARK	MORE THAN ONE SHAPE	NO. OF SHERDS	CORD MARK	DECORATION	MORE THAN ONE SHAPE	NO. OF SHERDS	CORD MARKED	FABRIC IMPRESSED	DECORATION	SLIP	POLISHED	MORE THAN ONE SHAPE
s 1	2	0			1	1			1		1		1		
v 2	2	2	1		0				0						
v 3	9	2	2		1	1			6	1					4
v 5	440	0			32	27	1*	3	408	5	138	6	23	9	7
v 6	100	1			19	1		2	80		3		16	4	4
v 7	35	0			2	2			33	1	21		1		3
v 11	27	5	5	3	0				22		2		1		
v 18	5	2	2		0				3						
v 20	13	0			0				13						
v 30	12	0			12	8			0						
v 33	8	8	7		0				0						
v 34	9	9	7		0				0						
v 35	2	1	1		0				1						
v 43	9	9	9		0				0						
v 57	2	2	2		0				0						
v 61	3	3			0				0						
v 62	6	4			0				2						

* stick impression

SITE

ARTIFACT TRAITS	v 3	v 5	v 6	v 7	v 18	v 21	v 24	v 28	v 29	v 30	v 31	v 32	v 34	v 35	v 36	v 37	v 39	v 41	v 44	v 45	v 57	v 59	v 60	v 61	v 62	v 64
Grinding Stone		☒																								
Grooved Ax																					☒					
Polished Celt	☒	☒	☒																			☒				
Hoe or Spade	☒																									
Projectile Point, Small Isosceles	☒	☒	☒		☒																				☒	
Contracting Stem		☒	☒	☒	☒		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		☒		☒	☒	☒	☒	☒	
Expanding Stem								☒										☒			☒	☒				
Side Notched		☒				☒								☒					☒		☒					☒
Diagonal Notched		☒																								
Flat Based			☒				☒				☒	☒	☒		☒	☒			☒	☒	☒			☒		
Concave Based																						☒	☒			
Flint Drill	☒																				☒	☒				
Pointed Bone Flaker		☒	☒																							
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Shell Pendant		☒																								
Columna of Conch Shell		☒																								
"Arrowshaft" Smoother		☒																								
Pottery Trowel		☒																								
Pottery Disc			☒																							
Equal Armed, Projecting Stem Pipe		☒																								
Chisel Celt	☒	☒																								
Discoidals		☒	☒																							

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Report on Pottery from the St. Louis Area

- James B. Griffin

Rockhouse Cave - Lee Adams

Hopewellian and Middle Mississippi Remains

from the Kansas City Area

- J. M. Shippee

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Errata

Make the following corrections in Vol. 7 No. 1:

P. 3, line 16 - change "in" to "on";
P. 13, line 1 - change "salt" to "silt";
P. 22 - change "SHELL TEMPERED" to "CLAY TEMPERED",
"CLAY TEMPERED" to "SHELL TEMPERED".

REPORT ON POTTERY FROM THE ST. LOUIS AREA

By

James B. Griffin
University of Michigan

The material for this study was obtained from the Academy of Science of St. Louis which is conducting an archaeological survey of Jefferson County in conjunction with the Work Projects Administration.[1]

This pottery has been described in some detail principally because of the absence of comparative material in the literature so that specific pottery types were not available into which these sherds would readily fit. These descriptions may be of service in the eventual definition of specific types for the area. Similar descriptive terminology is used in my Norris and Wheeler Basin studies.[2] In some cases the color of the sherd is capitalized, followed by a Plate reference. This is to Ridgeway, Color Standards and Nomenclature.

The majority of the Middle Mississippi sherds from the various sites may almost certainly be referred to the Trappist Focus of the Monks Mound Aspect. Cahokia might well be retained as the site name to apply to the entire area covered by mounds and village sites in the American Bottoms opposite St. Louis. Deuel, 1937, employed the term Monks Mound for an aspect division to which the Spoon River Focus of central Illinois appeared to belong. Assuming that Kelly's division of Old Village and bean-pot culture is correct, it is proposed to call the older level the Old Village Focus and the later Spoon River-like material the Trappist Focus.

The jar, bowl, plate, short necked water bottle and salt pan shapes clearly indicate the Phase status while the distinctive Cahokia shoulder and the presence of such pottery types as Powell Polished Plain and Cahokia Cord Marked indicate more specific affiliations. The pottery from Cahokia

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1. A more complete record of this will be found in: Adams, Robert McCormick; "Archaeological Investigations in Jefferson County, Missouri," Transaction of the Academy of Science of St. Louis, Vol. XXXII, No. 1.

2. Griffin, 1938 and 1939.

considered as a complex is distinct enough from other Middle Mississippi culture groups or areas so that it can be recognized as a unit. The pottery type designated Powell Polished Plain is a basic one for the pottery of the Old Village culture segregated by Kelly from the complex he found associated with the beanpot.[3] Kelly interpreted the field data as evidence that the former preceded the latter and this is supported by distributional evidence. The Aztalan Middle Mississippi Ware is related to the Old Village Focus at Cahokia and only in a more general way to the total ceramic complex at that site. Powell Polished Plain has a very limited distribution, but its closely related types apparently are found north along the Mississippi to northwestern Illinois and then across to Aztalan rather than up the Illinois Valley to the famous Wisconsin site. The Illinois Valley Middle Mississippi pottery primarily belongs to the ceramic complex associated with the beanpot, which is found in the last Mississippi component at Cahokia. The majority of the pottery from Jefferson County belongs in the beanpot complex.

The Woodland ware may eventually be split up into a number of distinctive types, but it is not at present possible clearly to segregate discrete cultural entities on this basis. The problem of cultural allocation is complicated by the relative absence of analytical reports dealing with sites yielding these types of Woodland ware.

One naturally looks to the immediate region for cultural analogues and the quest is not in vain. The most complete discussion of related remains is given by Titterington[4] in describing the burial complex which he has since named the Illinois Bluff Focus. This division could be called the Jersey Focus or some other name not so likely to be confused with either a linguistic group or a definite area. The two vessels from Mound 1 in Jersey County, Illinois, are very close to the grit tempered sherds with similar incurved and vertical to slightly flaring rims from Jefferson County, Missouri. The plain rim sherds illustrated by Titterington on Plate 7 are close to sherds grouped as Sub-type III from Site J^S3. The Ceramic Repository has received from Dr. Titterington a large proportion of the sherds from these Jersey County sites and a detailed comparison with the Jefferson County grit tempered sherds indicates a close connection. The Woodland ware from Pere Marquette State Park excavated by John Rinaldo with C. C. C. labor is also closely connected with the above mentioned ceramic division.

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[3] Kelly, 1932. Titterington, 1938, Fig. 43.

[4] Titterington, 1935.

In 1932[5] I published a short description of the culture found along the Mississippi bluffs near Quincy, Illinois, indicating an affinity with the stone vault graves of Central Missouri. This material from Adams County is sufficiently distinct from the Jefferson County pottery to suggest a separate focus, but the relationship is still fairly close. On the west side of the Mississippi in Ralls County, Missouri, pottery of the same grit tempered type has been recovered.[6] Similar sounding sites in northeast Missouri[7] suggest the probability of a widespread occupation of a distinctive Woodland complex associated with stone vaults and crypts in earth mounds, and in stone slab mounds. Recent reports by Harrington[8] and Berry[9] describing remains in Boone County, Missouri, substantiate the association of the central Missouri Woodland mounds with the sites discussed above.

The degree and the meaning of the cultural relationship between these related sites and those of the Maples Mills Focus[10] in central Illinois is not immediately perceived, although a definite connection is suggested by a fundamental ceramic tradition and other trait similarities. This would make an excellent study since Neumann has already pointed out that the physical type, from the Illinois sites at least, is very much the same.[11] A cultural connection with another aboriginal group at an earlier time period is indicated by the association of Hopewellian pottery and artifacts in mounds of the above type, but the major affiliation of these mounds does not appear to be with that highly specialized division of Northern Mississippi Valley prehistoric cultures.

More widespread and less specific cultural association to the east on the basis of ceramics can be seen with the Lewis Component at the Kincaid site;[12] the Albee Mound, Sullivan County, Indiana;[13] and the Greene County, Indiana, sites described by Black at the time as probably Algonkian.[14] In this study Black pointed out the Hopewellian affiliations of the mounds and village sites which produced pottery now classified as Woodland and which is related to the grit tempered ware from Jefferson County.

Sherds from the Cahokia village site collections, sent to the Ceramic Repository by Dr. P. F. Titterington, contain both grit and clay tempered Woodland sherds similar to those

[5] Griffin, 1932.
[6] Eichenberger, 1939.
[7] Wrench, 1939.
[8] Harrington, 1938.
[9] Berry, 1938.
[10] Cole and Deuel, 1937.
[11] Titterington, 1935.
[12] Personal ex. courtesy, Dept. of Anthropology, U. of Chicago.
[13] MacLean, 1931
[14] Black, 1933.

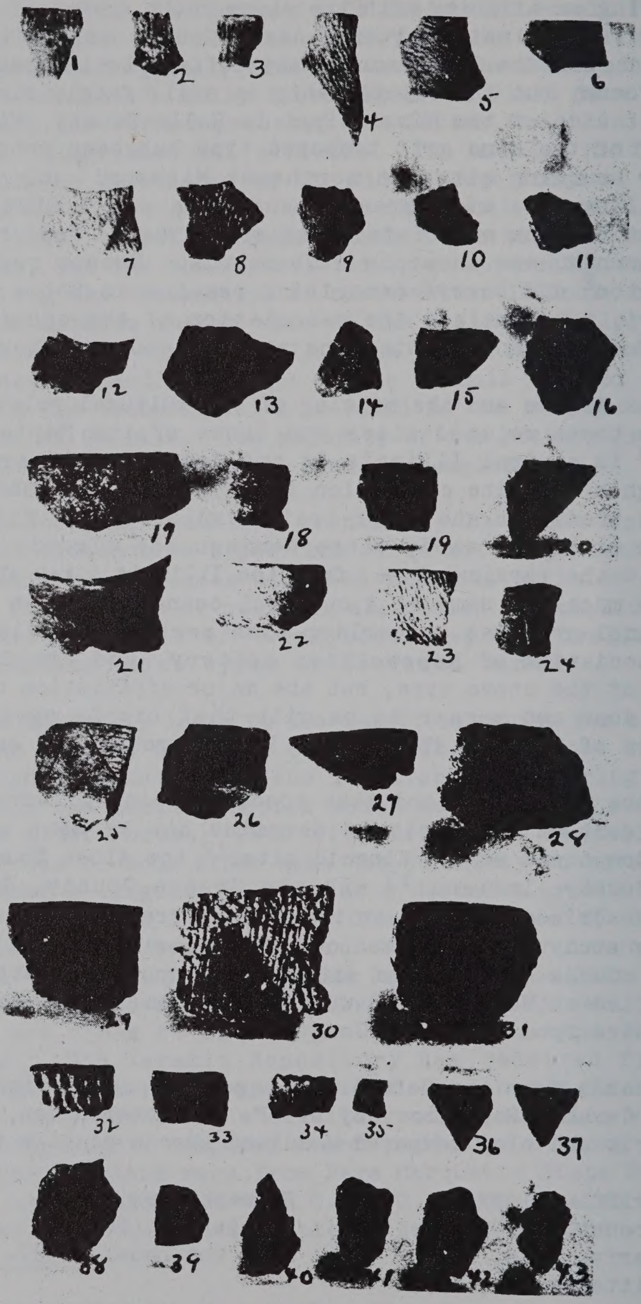
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PLATE I

from Jefferson County. There is probably a higher per cent of the smooth surfaced grit tempered ware from this area than from the sites described in this report. At Cahokia the smooth surfaced grit tempered ware has distinguishing characteristics which indicate its development into a specific type distinct from the cord marked pottery.

The ceramic affiliations of the clay tempered pottery from Jefferson County and the Cahokia site are clearly with the similarly tempered types in the central and lower Mississippi Valley where a clay tempered cord marked pottery horizon has been defined in the last few years. This mouth of the Missouri and the Illinois River area is apparently the northern limit of such a ceramic complex. While clay tempered sherds do appear in the lower and central Illinois River Valley, they are in a distinct minority and are found in sites attributable to the Hopewellian Phase. The Jefferson County types which are clay tempered probably belong to a somewhat later time horizon, for they are most closely connected with the dominant ware at the Korando and related sites in southern Illinois. The Korando site in Jackson County, Illinois, was excavated under the direction of Dr. A. R. Kelly, for the University of Illinois, and the material at that institution is representative of this horizon. Surface collections from Randolph, Jackson, Williamson, Union, and Pulaski counties, Illinois, which were sent to the Ceramic Repository by Prof. B. E. Merwin, indicate an important occupation of the area by peoples who fabricated clay tempered pottery. It extended in time from a period when plain plaited fabric impressions and rim bosses were common down to the horizon of the Maples Mills Focus. They located their villages in the valley floors and were definitely an agricultural group. As a culture this type of material either immediately precedes or is contemporary with Middle Mississippi sites in the same area.

There are a few thick sherds sparsely tempered with large particles of grit, and which have roughly smoothed surfaces that have an apparent connection with sherds from the Red Ochre sites in Illinois. Lack of truly distinctive characteristics make a cultural correlation on this basis rather dubious.

SITE J^{O}1

WOODLAND WARE. Sherd p 38/1 has an insloping unmodified rim and a narrowed lip (?). There are indistinct small cord impressions applied in no definite pattern on the outer rim area. There is very little tempering material present save one dull white piece of stone. The lip (?) is quite narrow, 3.5 mm, and the rim is only 6 mm.

Two other rim sherds, pp. 10 and 6 (Pl. I, Nos. 36, 37) have rather indistinct cord impressions on the outer surface. The first of these is a thin, 3 to 4 mm, black sparsely grit tempered fragment with a narrowed lip, while the other has a rounded lip, 6 mm. wide, and has a greyish brown color. Both rims are straight to slightly insloping.

Sherd p 40/2 is a small, slightly flaring rim with cord-wrapped paddle marks on the exterior surface and a row of slightly oblique cord wrapped stick impressions on the inner rim lip.

Sherd p 44/2 (Pl. I, No. 43) is a basal fragment 1.4 cm. thick with sparse, large fragments of crushed white grit. The paste is bluish grey and compact. The outer surface is brownish and faintly suggests cord markings.

Sherd p 41 (Pl. I, No. 32) has crushed grit temper and a medium texture. The particles vary from less than 1 mm. in diameter to over 6 mm. The rim slants outward a trifle and the flattened lip also slants outward. It is 7 mm. wide while the rim is 1.1 cm. The decoration consists of at least two horizontal rows of closely spaced finger punctates with the deepest part of the punctate and the pushed up ridge on the left.

Sherd p 40/4 is a cord marked body sherd with holes suggesting limestone temper. Sherd p 4/10 is smooth surfaced and also has holes suggesting the use of limestone temper. The color is between Light Vinaceous-Cinnamon and Light Pinkish Cinnamon, Plate XXIX 13"d and 15"d. Both sherds have medium fine texture.

Site J^{O}1 is apparently wholly attributable to a Woodland occupation. Subdivisions could be made on the basis of different kinds of temper or different surface finishes. If all the cord marked sherds are grouped together the majority will be grit tempered, while one will have limestone. A division made on the basis of tempering material would find plain and cord marked sherds with limestone temper, while other kinds of grit tempered sherds would have cord marked, smoothed-over-cord marked and punctate surfaces.

As far as the sherds themselves are concerned there is little direct evidence as to whether they belong to a single, relatively small, cultural unit or not. Such a statement should be based not only on a study of all of the sherds from this site but also on all of the sherds from related sites in this county and the surrounding area.

SITE J^{S}1

One rim p 14/3 sherd of Woodland ware with whitish angular grit temper. Particles of temper are small .5 to 1 mm.

Texture, medium fine. Hardness, 2-2.5. Color, near Avellaneous, Plate XL 17"b. Inner surface roughly smoothed. Exterior surface worked with cord-wrapped paddle. The individual cord impressions are not particularly distinct. The lip was also worked with the same tool. The rim is straight and vertical and the lip is flattened.

One body sherd p 8/3 of Middle Mississippi ware. Shell temper, medium fine texture. Hardness, 2.5. Color, near Verona Brown. Plate XXIX 13"k. Inner surface smooth. Outer surface slipped and polished. Slight lustre.

SITE J^{O}2

One rim sherd p 28/3 of Woodland ware (Pl. I, No. 39) with fine grit temper, compact paste, fine texture. Hardness 2-2.5. Exterior, interior and core is a yellowish buff. Slightly sandy feel.

Exterior surface has been worked with a cord-wrapped paddle with the cord impressions placed obliquely from left to right beginning just below a very small out-folded rim strip.

The rim is straight and was probably vertical. The lip is narrowed and rounded.

The inner lip edge has diagonal notches closely spaced.

SITE J^{S}3

WOODLAND WARE.

Sub-type 1. Temper, Grit-limestone fragments, large per cent 35 to 40. Size .5 to 2 mm.

Texture, Paste compact to granular - medium. Hardness, 2.5 to 3. Color, Smoke blackened gray. Surface finish,

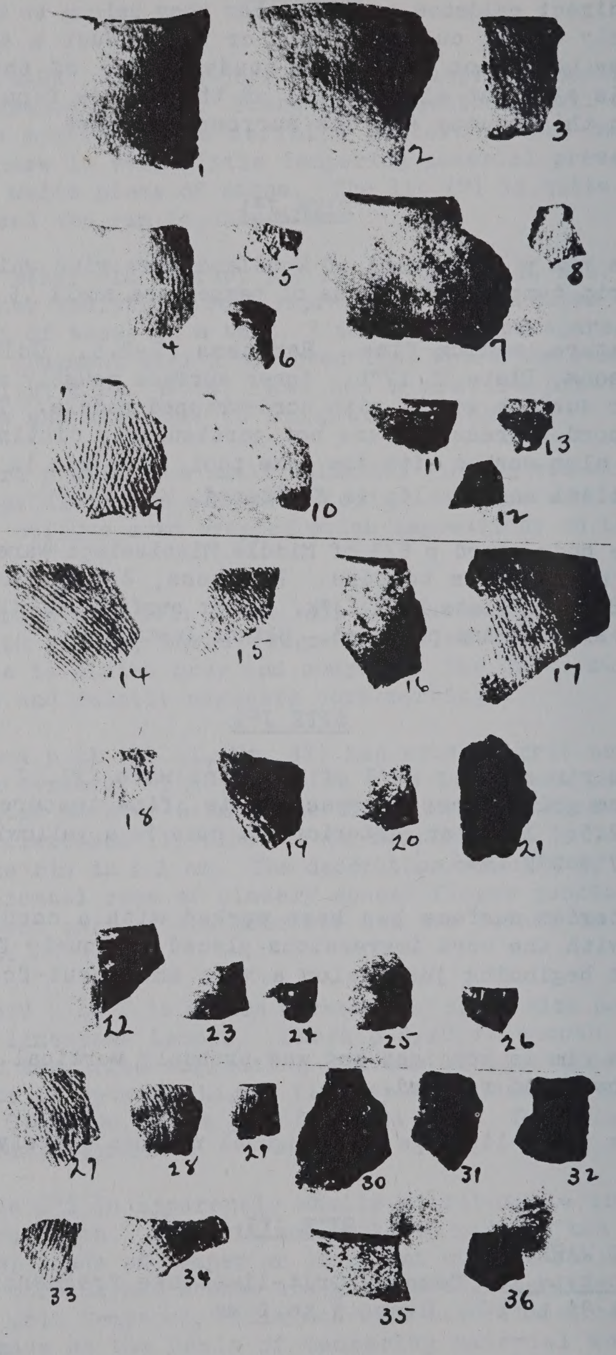
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PLATE II

Cord over outer surface, individual impressions not very distinct, predominantly vertical. One rim, straight, probably vertical. Lip is flattened and thickened. Lip 7 mm., rim 4 mm., 10 body sherds.

Sub-type II. Two sherds p 49/17 & 18 which are probably from the same vessel (Pl. II, Nos. 14, 15). Temper may be clay - small proportion present. Texture rather granular, medium fine. Color approaches Hair Brown, Plate XLVI, 17''''i. Hardness, 2-2.5. Surface covered with well defined cord impressions placed obliquely and close together slanting left to right from lip down. These sherds were from a large shallow bowl with outcurving side walls. The lip is rounded and smoothed. The shaping of the lip has produced a thin overhanging strip of clay on the outer rim. This vessel is very similar in shape to p 26/3 (Pl. II, No. 17).

Sub-type III. Two sherds p 20/1 & 7 (Pl. II, Nos. 16, 21) which are probably from the same vessel. Temper, coarse whitish angular grit 2 to 4 mm. Diameter, 30 to 40%.

Texture, medium coarse. Color, outer a gray brown, and gray interior. Hardness, 3.5. Surface, inner surface smoothed - crackled. Exterior rim is smoothed, somewhat less crackled. This smoothed rim extends down the vessel wall about 8 cm. Body is cord marked with criss-cross impressions. Straight vertical rim. Lip flattened. Lip thickness 7 mm., rim 5 to 6 mm.

Miscellaneous. One sherd J^s3 p 3/2 is from a crudely made shallow bowl with a low, almost vertical, rim and insloping body. Temper is very rare. Texture fine. Outer and inner surface crudely scraped and smoothed. Lip is narrowed and uneven. Lip thickness 2 mm., rim 5 mm., body 6 mm.

Sherd J^s3 p 26/3 (Pl. II, No. 17). Shape very similar to sub-type II. Cord impressions are not as well defined but also placed obliquely, left to right. Interior surface has fine horizontal striations from scraping and smoothing operation. A distinguishing feature of this sherd is the medium coarse limestone temper with a few specks of shell. The lip is rounded and uneven. It has slight evidence of cord wrapped paddling.

MISSISSIPPI WARE.

Powell Polished Plain. Sherds p 25/2 (Pl. II, No. 22); p 6/14; p 4/5; p 40/3 (Pl. II, No. 23). Temper, Shell, rather fine flaky particles - about 20%. Texture, fine. Hardness, 3. Color, Exterior bright greyish brown to black. Interiors are near a light pinkish cinnamon. Paste grey. One sherd has a distinct firing cloud. Surface, Interior smooth. Exterior is well compacted and lustrous. Narrow horizontal polishing marks 1 mm. wide are clearly visible.

The first two sherds listed are from the same vessel which has a rounded lip and a vertical side wall. It is probably from a deep straight-sided bowl or beaker, with a flattened bottom. The last sherd indicates the presence of bottoms of this type.

Miscellaneous. Two small sherds are good examples of "typical" Middle Mississippi pottery. One has a notched outer lip edge.

One body sherd p 16/3 is a poorly finished example of Middle Mississippi plain ware.

Sherd p 30/1 (Pl. II, No. 14) is very close to the type Rose Red. Red slip with a slight luster.

Sherd ? (Pl. II, No. 25) both inner and outer surfaces have a paint on the exterior.

SITE J^v5

WOODLAND WARE. Two cord marked specimens p 15 and p 28 have different types of temper and surface appearance. The first has large white granular particles of grit protruding from a badly eroded surface. The second has a finer texture with small tempering particles with more rounded surfaces. The indistinct cord marks are quite small with some overlapping.

Sherd p 29/2 (Pl. I, No. 40) has very indistinct impressions of what may have been cord markings. It is thick, 1 cm., has a pinkish core and an orange brown exterior. The temper is sparse but large. One fragment is 10 x 7 x 4 mm.

One sherd p 5/8 is a badly eroded specimen with holes indicating the use of limestone for temper.

Two specimens p 31 and p 18/1 look like fragments from the same or very similar vessels. The first of these is probably a rim sherd with a rounded lip 5 mm. wide. A vessel with a slightly insloping shoulder and rim area is indicated. The rim below the lip has horizontal rows of vertically placed ovoid thumbnail impressions with the deepest section and the pushed up clay ridge on the right. These specimens have a sandy feel. Their surfaces are badly eroded but were probably originally smooth. The color is a close approach to Sorghum Brown, Plate XXXIX, 9'''i.

SITE $J^{S}7$

There are two distinct ceramic complexes at this site. The first is a Woodland complex which belongs to the same cultural division as the Woodland pottery found by Titterington in Jersey County, Illinois and called by him the Illinois Bluff Focus of the Woodland Pattern. It is also related to the Maples Mills Focus. The second distinct complex belongs to the Middle Mississippi Phase and can be classified tentatively as belonging to the Trappist Focus of the Monks Mound Aspect. Three sherds to be discussed later do not fall readily into either group.

WOODLAND WARE. Within this group there are two minor divisions whose differentiation resulted from slight variations in paste, temper and surface finish. The cultural significance of these is not immediately apparent.

Sub-type 1. Sub-type 1 has a light creamy colored core and surface where the outer layer has been eroded. The tempering material is angular, predominantly white crushed rock. The paste is compact. The texture is medium fine to medium. The hardness is 2-2.5. The surfaces have a tendency to erode, thus partially obliterating the cord marks on the exterior surface. All of the sherds are marked with the cord-wrapped paddle. There are eight body sherds and two rim sherds. One rim, p 20/5, has a narrowed and rounded lip and predominantly vertical cord markings up to the lip. The rim is straight to slightly insloping. The lip is 2.5 mm. wide and the lower rim 5 mm. The second rim p 72 (Pl. I, No. 5) is somewhat artibrarily placed in this sub-type although the distinctive temper was not used. In this piece the temper is barely visible as very small white specks. The rim is incurving and the lip is rounded and very slightly everted. The cord markings on the exterior surface are predominantly horizontal. Lip and rim are 4 mm. thick.

One of the body sherds p 148 (Pl. I, No. 7) shows the vessel was constructed by coiling or ring building.

Sub-type II. The sherds in this group are also grit tempered but a different rock was used; the texture is more granular, and both exterior and interior surfaces are blackened. Some of the exteriors are a gray. The hardness is 2-2.5 and 2.5 as a group is harder than Sub-type I. The exteriors are all cord marked. There are nine body sherds and two rims. The first rim, p 142, (Pl. I, No. 1) has a narrowed and rounded lip and the exterior cord impressions are dragged. The lip is 3.5 mm. wide and the lower rim is 7 mm. The inner surface of this sherd shows fine horizontal scraping marks. The second rim, p 12(?)/3, has small holes which may be eroded temper. The exterior color is close to Deep Mouse Gray, Plate LI, 15''''''i. A distinguishing feature is a short vertical rim which passes into an abruptly outsloping shoulder area. The rim and lip are distinctly narrower (3.5 mm.) than the shoulder (4 mm.), and the lip is crimped by narrow deep vertical impressions closely spaced on both the inner and outer rim areas. This has produced a wavy, undulating lip surface.

Miscellaneous. Two sherds have a distinctive reddish buff cast and a slight amount of grit temper. One rim sherd, p 109/2, (Pl. II, No. 3) has faint cord markings up to the lip. The inner lip edge is narrowed and has short, oblique, unevenly spaced narrow impressions. The other is a body sherd with a roughly smoothed surface and a distinctive sandy feel.

The third of the three miscellaneous sherds, p 50, (Pl. I, No. 6) has a smooth exterior and interior light to dark gray surface. The paste is compact and there are no tempering particles visible. The texture is fine. The hardness 2.5 to 3. The rim slopes slightly inward and the lip is narrowed and rounded.

MIDDLE MISSISSIPPI. Two plain surface body sherds p 52/4 and p 31/1 (Pl. I, No. 14) have a greyish buff color and medium fine texture.

Two reddish body sherds p 146/2 and p 150 have abundant, very fine shell temper.

One plain surface lower rim and upper body of a small lobed jar, p 57/1.

One sherd with the distinctive almost horizontal shoulder of the Cahokia pottery, p 125/1 (Pl. I, No. 13).

Two cord marked body sherds. One p 81 (Pl. I, No. 16) has a gray natural interior while the other, p 10, has a reddish paint on the inner surface. This latter trait is one of the features of the Cahokia Cord Marked type.

One rim, p 115, is from a short necked water bottle or constricted mouth jar. The rim is straight and the lip is rounded. The color is a neutral gray.

One rim, p 101/ 1 & 2, is from a jar shaped vessel with a straight rim that slanted outward at a 65° angle.

One rim, p 85, (Pl. I, No. 19) is probably from a plate. It has two, medium wide, shallow notches closely spaced in the lip.

Two rims, p 145 and p 36/1, (Pl. I, Nos. 17, 20) are from salt pans which probably did not have fabric impressions on the outer surface.

Two rims, p 8/1 and p 65, are apparently from the same type of vessel but just what their shape is, is difficult to say.

SITE J°35

WOODLAND WARE. Three rim sherds, p 140, p 99, p 62. The first is straight and vertical with cord markings up to and on the narrowed and somewhat flattened lip. It has a grayish tan exterior and interior. The outer two sherds have a reddish tan interior and exterior. They are faintly cord marked. While the second rim is from a small vertical rim jar, the third one has a contracting rim with no modification above the greatest constriction at the mouth. In paste characteristics these rims are similar to the body sherds described below.

One sherd, p 54,' is approximately one-third of a small "child's pot." Like most specimens which can be placed in this category there is little if any tempering material and the surfaces are roughly smoothed.

There are fourteen body sherds which have cord-wrapped paddle impressions on the exterior in varying degrees of preservation and there is considerable color range. The paste itself resembles that found in Korando cord marked, but these sherds have a very small proportion of large crushed rock tempering material instead of clay.

There are three body sherds similar in surface finish to the above group, but which were apparently tempered with crushed limestone. The limestone has disintegrated, leaving small holes with shapes comparable to those of crushed grit.

MISSISSIPPI WARE. Two badly eroded plain surface body sherds. Two badly eroded rims representing the same two jar shapes discussed at J^{v}32.

One rim fragment also eroded, p 25, (Pl. II, No. 36) is probably from a vertical sided bowl or beaker.

SITE J^{v}32

WOODLAND WARE.

Korando Cord Marked. Temper, Clay, approximately 30% to 40%; rather granular in appearance, generally light cream to buff color. Texture, paste appearance variable, from compact to granular; medium. Hardness, 2.5 to 3. Color, interior surface often smoke-blackened. Exterior varies from dark grayish brown to grayish tan.

Surface finish, exterior covered with cord-wrapped paddle impression which is rarely smoothed. Cord impressions predominantly vertical at this site. Interior surface usually roughly smoothed.

Decoration. One sherd, p 92/1, (Pl. II, No. 5) has two holes in the rim 2 cm. below the lip that may be part of a horizontal row. They are 7 mm. in diameter and spaced 1 cm. apart. They were punched from the outside while the clay was still soft.

Appendages. One ovoid loop handle was attached to a vessel of this type. The handle is cord-marked. It is 2.4 cm. wide and 1.5 cm. thick.

Rims. Three vessel shapes. (1) A wide mouth vessel, p 55/3 (Plate II, No. 3), with a slightly convex outer wall. (2) A straight, almost vertical rim jar, p 141 (Pl. II, No.1) with side walls bulging slightly at the shoulder area. (3) A contracting rim jar, p 227/4 (Pl. II, No. 4), with no shape modification above the minimum diameter of the mouth.

Lips. Flattened on shape 1; rounded on shape 2; and narrowed and rounded on shape 3. Lips on shape 1 narrower than rim.

Body. As given above. Bases of shapes 2 and 3 are probably not particularly conoidal - probably rounded.

Size. No sound data.

Cord-Marked Grit Tempered Sherds. These three sherds p 273/1 (?), p 175, (Pl. II, No. 7) and p 146/8. (Pl. II, No. 8) have been grouped together because of paste differences from the Korando group. The first is a body sherd with limestone temper and a hardness of 3. The third is a small rim sherd which is very close to the first specimen in all of its characteristics except that the cord marks are somewhat obliterated. It has a small vertical lug projecting horizontally from a slightly raised rim and is attached just below the lip. It is the same lug style that is found in Illinois in the Maples Mills Focus and in the Woodland ware of the Lake Michigan Phase. The large rim p 175 (Pl. II, No. 7) has medium coarse grit temper and a hardness of 4. The outer surface is cord marked with rather small, closely spaced vertical impressions. These cord marks were partially obliterated before the vessel was fired. The inner surface was roughly smoothed horizontally by the fingers. There is some surface crackle. This rim is rather high, straight and almost vertical. There is a sharp curve outward to the shoulder area at the base of the rim. The flattened, exteriorly extended lip was added as a distinct ring. The lip thickness is 1.1 cm. and the rim is 7 mm. The color of this group is a dull gray.

One cord marked, fine textured, limestone tempered body sherd, p 31/3.

Plain Surface Sherds. This one sherd, p 194, is particularly interesting, for save one characteristic it is very similar to Middle Mississippi pottery. This one aberrant feature is the use of crushed limestone as the tempering material. The particles are about 1 mm. in diameter and comprise about 30% of the volume. The texture is medium fine. The hardness is 2.5. The outer and inner surfaces are carefully smoothed and compacted. The core is a dark grey with both inner and outer surfaces, a very thin lighter gray to grayish brown. The interior surface has scattered remains of a reddish brown paint (?).

MISSISSIPPI WARE. Two rim sherds, p 102/5, (Pl. II, No. 13) and p 126/2 (Pl. II, No. 11) are from Cahokia shape jars. The first has a very low rim and a nearly flattened shoulder area. The second has a vertical to slightly insloping rim with a short, sharply angled upper rim which projects outward almost horizontally. The lip is narrowed and rounded. Both rims have traces of reddish pigment, the first on the exterior and the second on the interior surface.

One body sherd, p 104, has a dark red exterior painted surface which is near Hay's Russet, Plate XIV, 7'k.

One basal sherd of a large medium tempered vessel - largely eroded.

SITE J^{o}40

WOODLAND WARE.

Korando Cord Marked. For basic description see J^{v}32. Three body sherds of jars. Two rim sherds of the same shape from an almost vertical walled container, with a slightly incurving rim. The cord marks on the exterior are vertically placed and the flattened lip is also cord marked. The lip is 8 mm. thick and the rim or body is 1 cm. On p 130/2 there are traces of a reddish paint on the smoothed inner surface.

MISSISSIPPI WARE. Most of this ware from this site is badly eroded and the use of shell fragments for tempering material is inferred from the shape and orientation of the holes in the sherds.

Salt Pans. There are eight sherds of plain surfaced salt pans or large shallow bowls. The lips on two of the rim sherds are flattened and of approximately the same thickness as the vessel walls (1.5 cm. to 1.3 cm. on one sherd and 1 cm. on the other). Two other rims have a thickness of 8 mm. The lips on these are also flattened.

There are two salt pans with fabric impressions on the exterior surface. This trait is relatively rare on Cahokia salt pans. The first of these sherds has a slightly narrowed and rounded lip 9 mm. wide. The exterior surface below the lip for 4 cm. is plain and the remainder of the exterior is presumably covered with fabric impressions of a twilled twine weave. The weft strands are 6 to 8 mm. apart and the individual strands are about 1 mm. wide. The warp is not evenly reproduced either because of the condition of the fabric or the inadequacy of the impression. There are, however, 7 to 8 warp strands per centimeter in the better preserved areas. The warp strands appear to be slightly narrower and not as tightly twisted as the weft. The second fabric impressed sherd is from the basal area and has what is probably a plain twined cloth impression with the weft strands 2 to 2.5 cm. apart and the warp strands averaging 3 to each centimeter. The warp impressions are 2.5 mm. wide while the weft strands are about half that figure.

There are two plate rims. The first of these, p 105/9, (Pl. I, No. 26) has a plain exterior and interior surface. The individual shell fragments used were quite small and the texture is fine to medium fine. The rim is 8 mm. thick at the base and gradually narrows to an almost pointed lip. The rim is 3.8 cm. wide. The body of this plate is quite shallow.

The second plate rim p 106 (Pl. I, No. 25) has an incised decoration on the inner rim and the surfaces retain a distinct luster in spite of the deterioration of the shell particles and the weathering on the original surface. The color is also distinctive. It is close to Cinnamon, Plate XXIX, 15''. The texture and tempering are similar to the first plate rim. The decoration is strongly reminiscent of many plates from the Middle Mississippi area and particularly of the western Kentucky area in the post-drying or post-firing incising technique and in the use of triangular areas filled with such lines. These areas on this sherd have the base of the triangle at the lip. The sides of the triangles instead of obliquely slanting in a straight line from the lip to the base of the rim are slightly convex. Small rectangles are formed in one triangular area by incised horizontal lines crossing similar roughly vertical lines. These lines are closely spaced. In the other area one set of the filling lines is horizontal while the other is right to left oblique and not as closely spaced. The lip on this rim is flattened, 5 mm. wide, and slightly everted and the rim is 9 mm. thick at the base. The rim is 4.8 cm. wide. The basal portion is somewhat deeper than in the other plate.

Jars. One rim sherd, p 40, is straight and has a flat lip 8 mm. wide. It was attached to the shoulder area at about a 45° angle. It is 3.8 cm. high. Both surfaces are plain.

One rim sherd, p 12/3, has a straight short rim 2.1 cm. high attached to the shoulder area at about a 60° angle. The lip is flattened and is 4 mm. wide. This is also the thickness of the rim and shoulder area. Both inner and outer surfaces are plain.

Bottles. A rim sherd, p 138/1, (Pl. I, No. 22) is 4.2 cm. high and is straight and vertical and is probably from a short, wide necked water bottle. The rim is 9 mm. wide at the base and narrows to a rounded lip 4 mm. wide. Both inner and outer surfaces are plain.

Miscellaneous. There are five body sherds. Four have a texture and surface similar to St. Clair Plain. One of these is cord marked. The fifth sherd is a basal fragment with a flattened surface. Besides the shell temper there appear to be small fragments of light colored clay included in the gray paste.

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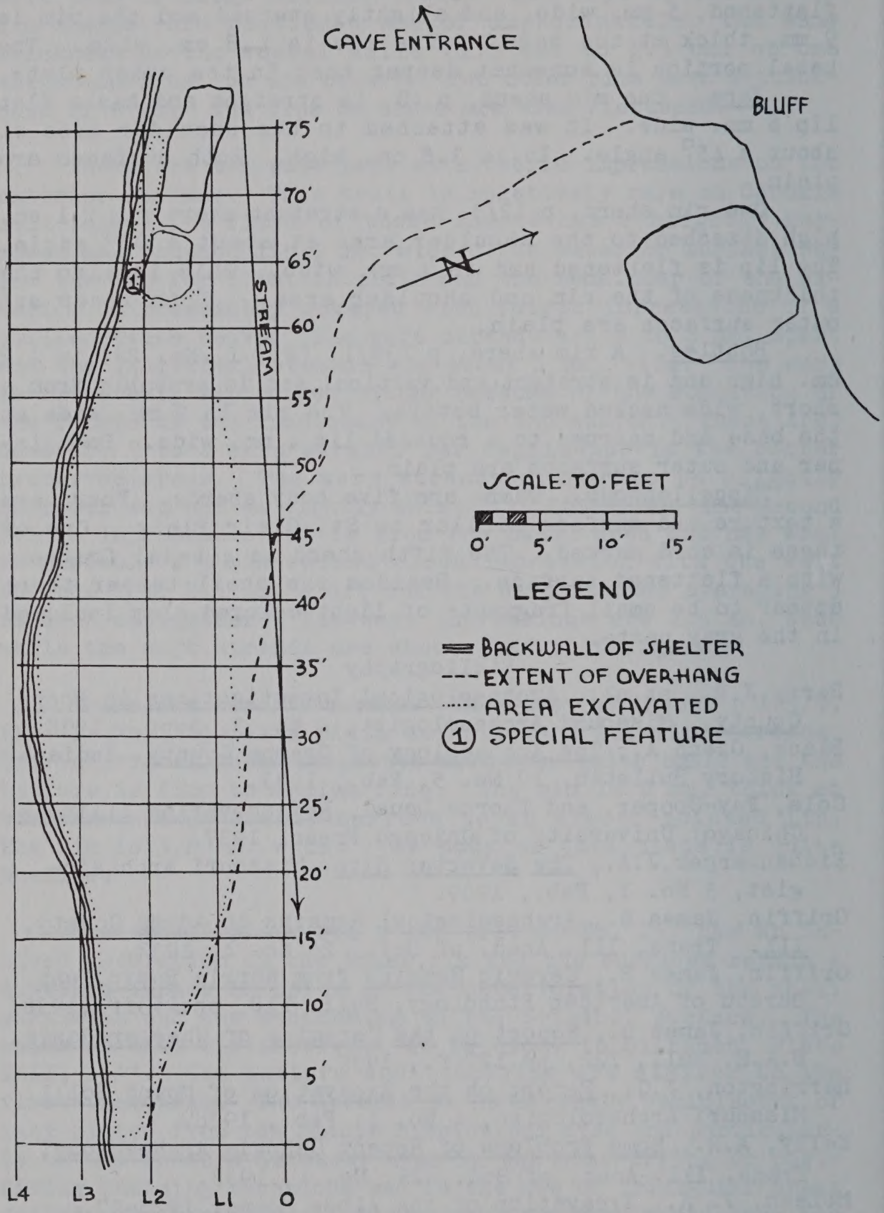
FLOOR PLAN ROCKHOUSE CAVE BY:3


CAVE ENTRANCE
BLUFF
N
STREAM
75'
70'
65'
60'
55'
50'
45'
40'
35'
30'
25'
20'
15'
10'
5'
0'
L4
L3
L2
L1
0
1
SCALE·TO·FEET
0'
5'
10'
15'
LEGEND
BACKWALL OF SHELTER
EXTENT OF OVERHANG
AREA EXCAVATED
① SPECIAL FEATURE

ROCKHOUSE CAVE

By

Lee Adams
Monett, Missouri

Approximately one mile southeast of the town of Mineral Springs on the main Rockhouse Creek road is an interesting cavern known as Rockhouse Cave. Being located on the old Wilder farm it is sometimes spoken of as the Wilder cave. The big spring at the cave and other springs in the immediate vicinity have resulted in the area being mentioned as the source of Rockhouse Creek. This is, at present, only a small wet-weather stream. It is a tributary to Flat Creek. Several small campsites have been located along its narrow, rocky banks. The surrounding area is made up of high, wooded hills and narrow, rough valleys. Rockhouse Cave is situated at the base of one of these high hills, with the opening toward the east. The entrance and extending rock-shelter are formed from layers of limestone. From its position and formation it is not especially well adapted to the needs of primitive people in search of'shelter. The mouth of the cave proper has been washed to bed rock by the intermittent flooding of the spring branch. The ceiling and walls of both the entrance and rock-shelter drip with moisture during the wet seasons. A high, protecting bluff extends approximately fifty feet from the mouth on the north. The whole arrangement takes the form of a large U, as shown in Fig I., page 18.

It was learned that some minor changes had been made near the entrance by early settlers to improve the spring, and some excavating had been done in the cavern, but nothing was disturbed under the rock-shelter. The entrance has been and is still being used for storing farm machinery. The surface was littered with timbers and other debris, but with this cleaned away, a deposit of ashes and midden was encountered extending the full length of the overhang and reaching fifteen feet in width. There was no accumulation of gravel, stone slabs or other material. Flint chips, cracked bones of animals, and broken projectile points were scattered sparingly over the surface.

A straight line was measured off along the extreme outside edge of the deposit. See Fig. I. Since it was impossible for me to work more than two consecutive days, and the cave entrance was in use during my absence, only a small area could be staked off and worked at a time. Work was begun at the extreme east end of the rock-shelter, or the farthest point from the cave entrance. Stakes were set five feet apart from 0 to 15. Then stakes L1 and L2 were set. Stakes L1, L2 and the 0 stake were driven to the ground level as permanent markers, and remained in place during the excavation. As the work progressed all other

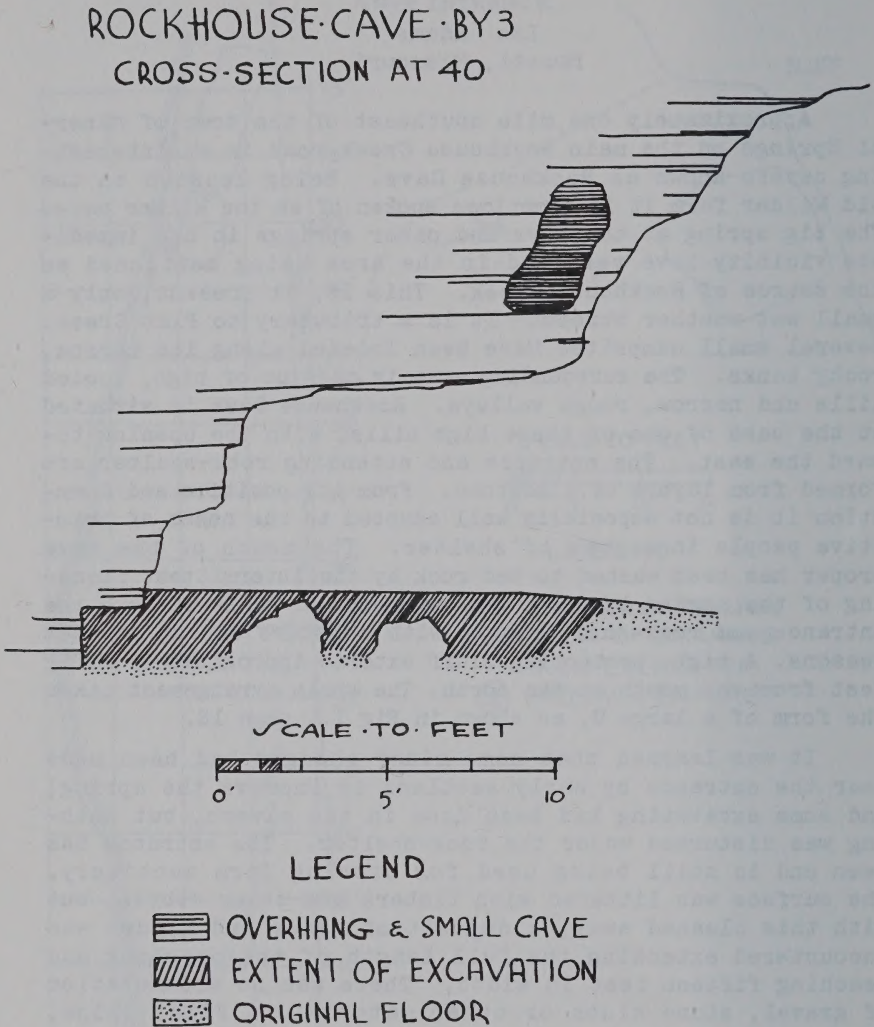

ROCKHOUSE·CAVE·BY3
CROSS-SECTION AT 40
SCALE·TO·FEET
0′
5′
10′
LEGEND
▤ OVERHANG & SMALL CAVE
▨ EXTENT OF EXCAVATION
░ ORIGINAL FLOOR

FIG. II

stakes were removed except the last one in the outside line. This was driven to the ground level each time as a starting point for the next section to be excavated. This procedure was necessary because I was requested to level the work before leaving each time. The plan worked very well.

Excavation was begun in square L1 and on into square L2 along the zero line until the wall was encountered. The same procedure was carried out in the space between the 5 and 10 foot lines. Thus, each five foot section was completed entirely across the deposit before another was begun. The deposit along the outside edge was skimmed until a vertical face was established. This was gradually sliced away so that all specimens of size were readily discovered and marked according to their location. After the midden was thus searched it was thrown to the rear into screens. Many very small pieces were recovered by screening that would otherwise have been overlooked. The deposit was wet on the surface and became so muddy at the bottom that screening had to be abandoned. In spite of the moisture, bone and shell material was well preserved. There was no deposit of white hard-packed ashes or any form of solidification. It was made up entirely of well packed humus, ashes, charcoal, flint chips and spawls, cracked animal bones, whole and fragmentary mussel shells and occasional limestones from the ceiling. It reached a depth of three feet in several places. Clay formed the uneven original floor. The natural pits or depressions in the floor were filled with cracked animal bones and camp refuse. A few large limestone boulders or slabs from the ceiling rested on the original floor. Around these slabs and in the pits in the floor some of the finest complete specimens were found.

As the work progressed beyond the 30 foot line, what had appeared to be a solid wall proved to be only a low overhanging ledge. See Fig. 2. About six inches under the surface the wall gave way to a rich deposit of midden. The ledge was too low to have been lived under, and little signs of fire were in evidence; however, it had been used as a receptacle for most of the refuse from the camp. It extended from square 25 to square 65. Bones of the deer, elk, bear, bison, as well as those of smaller animals, fragments of mussel shell and tortoise shell were abundant. The small amount of ashes and humus under the ledge appeared to have been pushed into the depression in attempting to level the floor. Only a few flint chips were present, but many broken and rejected flint implements and an occasional bone implement were recovered which seemed to have been purposely discarded. This portion of the deposit was not so wet.

Approximately 175 complete and 200 damaged specimens were found. The common arrow point 1 1/2 to 3 inches in

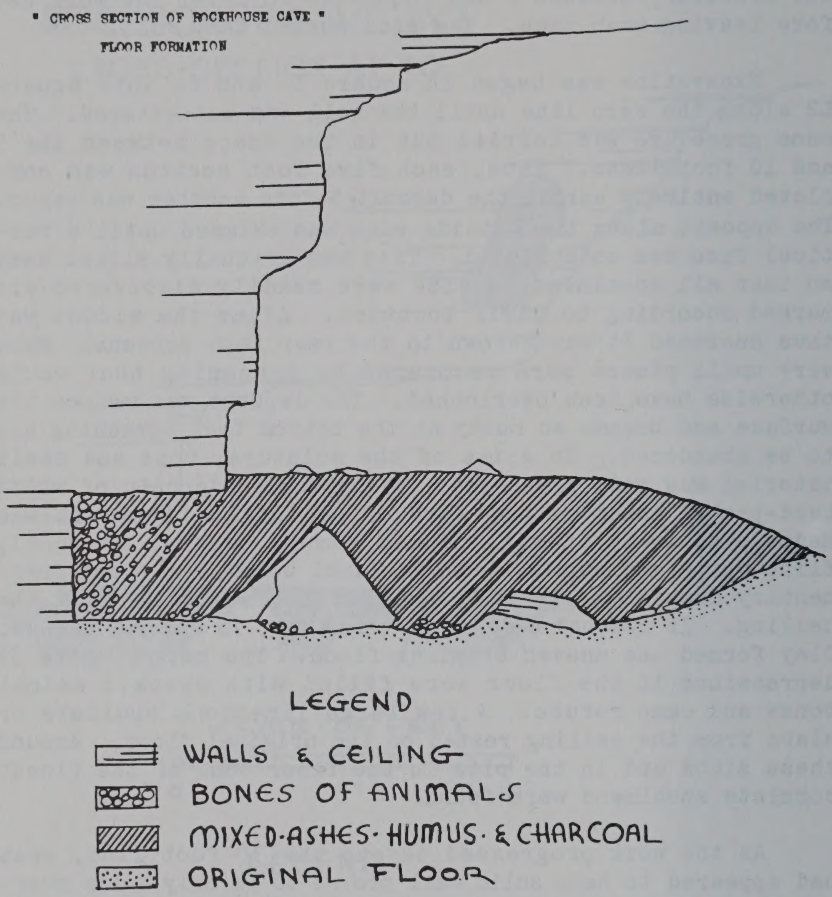

" CROSS SECTION OF ROCKHOUSE CAVE "
FLOOR FORMATION
LEGEND
WALLS & CEILING
BONES OF ANIMALS
MIXED·ASHES· HUMUS· & CHARCOAL
ORIGINAL FLOOR

FIG. III

length was most abundant. These were both notched and stemmed types, with the stemmed types predominating. Several larger projectile points reaching 4 1/2 inches were found. See Fig. 4. Other flint objects consisted of bunts, -scrapers of many forms, drills, celts, and blades. Most of the implements were well fashioned. About twenty small triangular and willow leaf points were found. In addition, six ovate shaped, much used, sandstone pestles, 7 cracked and polished bone awls, several polished antler points, one small perforated mussel shell, a piece of cedar handle 1 inch in diameter and 14 inches in length, and an implement made from the scapula of a large animal were recovered. The ridge of the scapula has a polished surface with 22 notches. It is shown in photograph No. 2.

At the extreme end of the deposit on the south side of the cave entrance, beneath a shallow deposit of muddy earth and midden, the partial remains of an adult were encountered. The skull and part of the bones of the upper skeleton were in place, undisturbed, and well preserved. The bones of the lower limbs, pelvis, lower vertebra, and one arm were missing, and no fragmentary bits were encountered. Enough of the burial remained undisturbed to determine the position. The remains had been placed in a narrow opening between the wall and a large boulder. At the time of excavation they were not over six inches under the surface. The width of the opening would not permit the interring of a flexed burial. The body was evidently placed on the right side in an extended position with the head toward the east. See Fig. 6. No artifacts were found that could be associated with the burial.

It is possible that the changes made by white settlers may be in part responsible for the present wet condition of the deposit under the rock-shelter, and the disturbed burial. The fact that the skeletal material recovered was very well preserved would discount the possibility of complete decay.

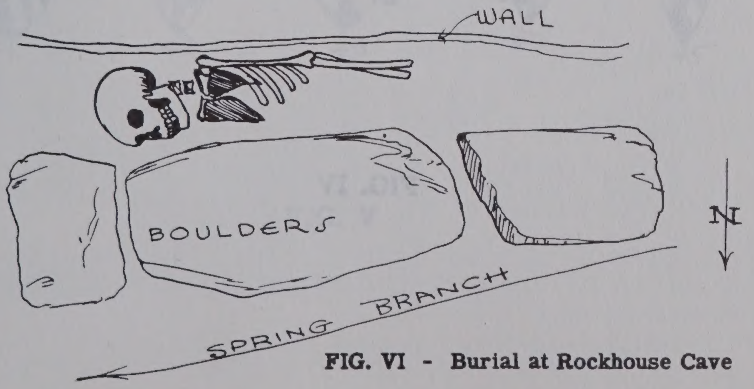


FIG. VI - Burial at Rockhouse Cave

TRACINGS OF PROJECTILE POINTS - ROCKHOUSE CAVE

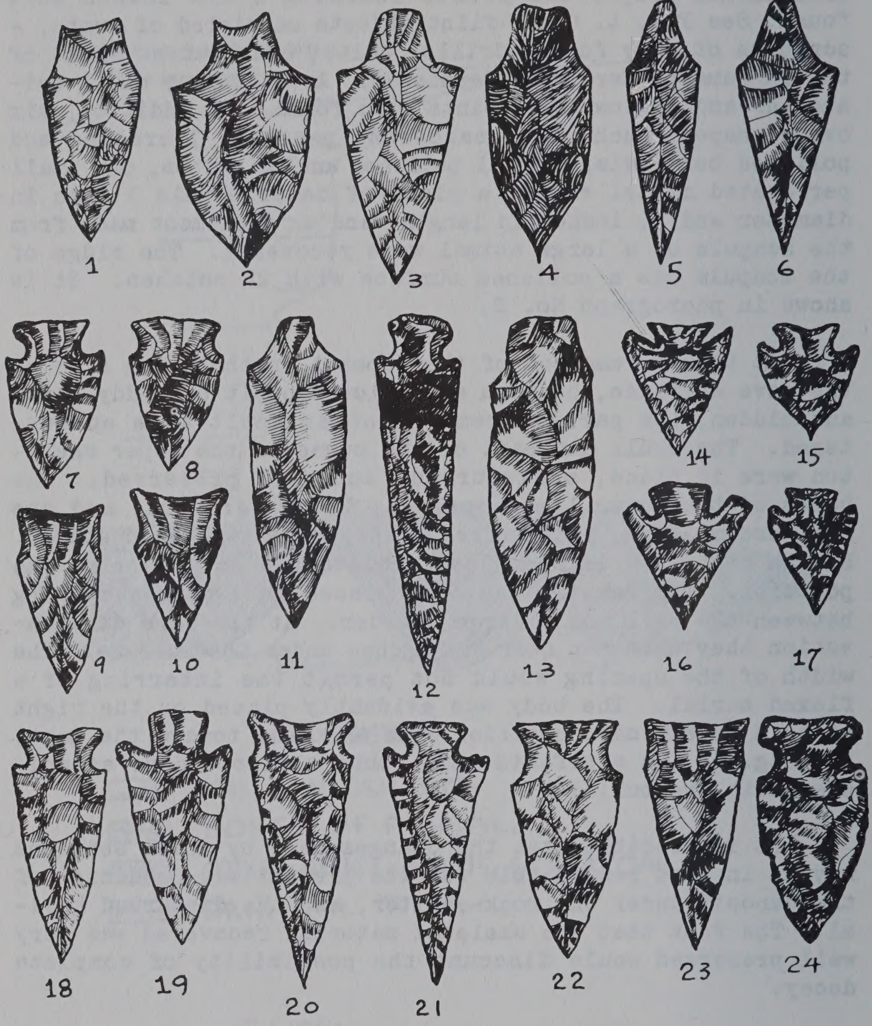

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FIG. IV

TRACINGS-OF-ARTIFACTS-FROM-ROCKHOUSE-CAVE
WHITE-PINK & GRAY CHERT & FLINT

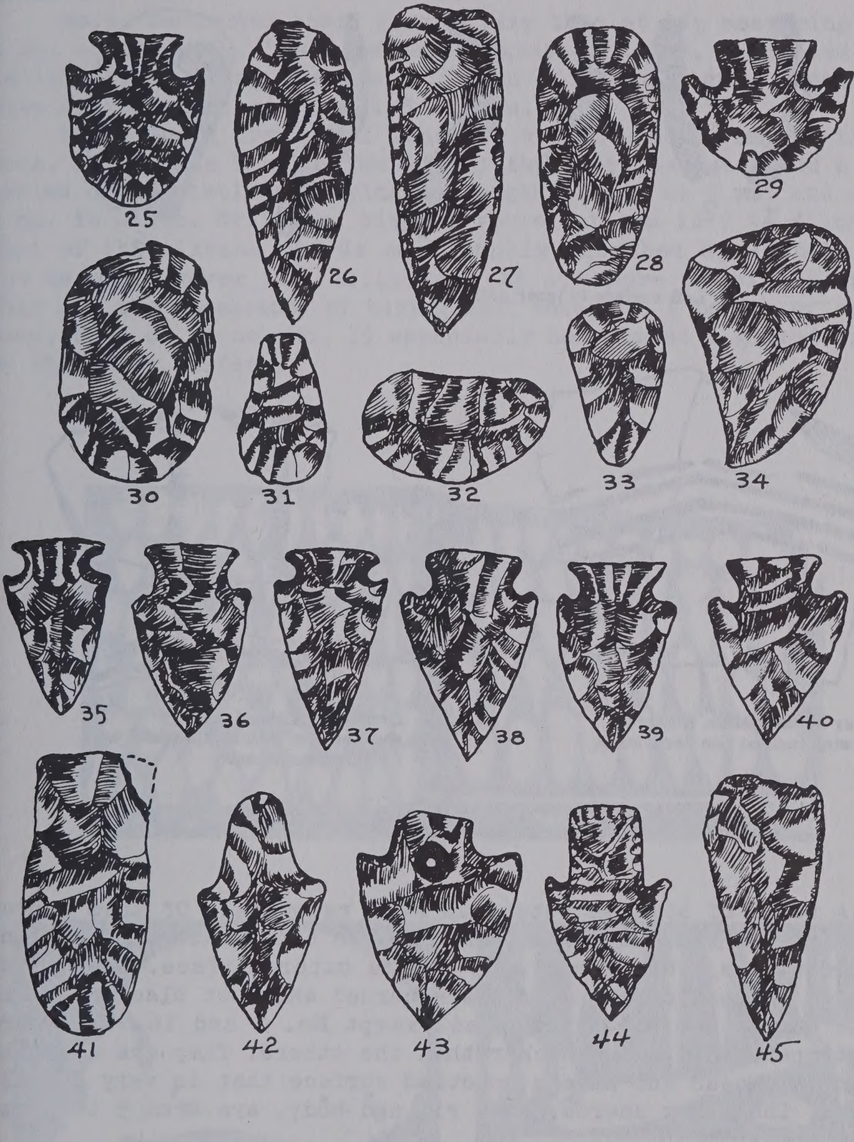
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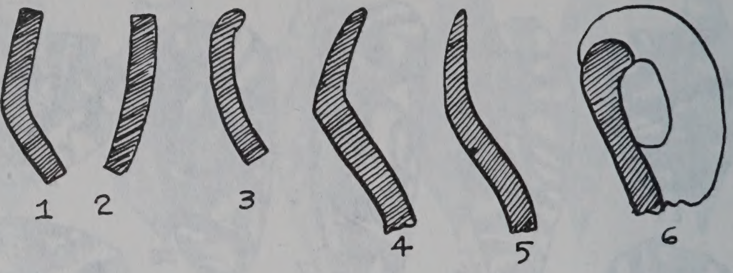
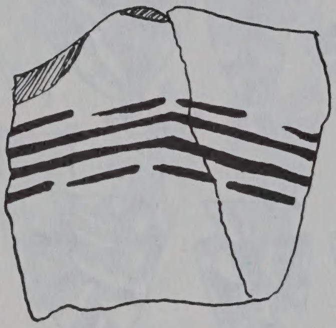
FIG. V

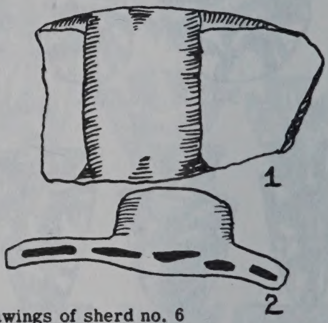
Rim sherds from Rockhouse Cave



Left surface is inner surface.



Outer surface of no. 5 sherd showing incised line decoration.



Drawings of sherd no. 6 showing rim with strap handle and lip with punctations.

A total of sixteen potsherds were recovered. Of this number only six were rim sherds. All are gray in color except No. 10 and 15. These have a cream-red tone on the outer surface. The inside surfaces of most of the sherds are burned and soot blackened. All of the sherds are shell tempered except No. 2 and 16. These are grit tempered and much thicker than the others. They are about 10 mm. in thickness and have a smoothed surface that is very closely related. The other sherds, both rim and body, are from 5 to 8 mm. in thickness.

No.1. A sherd from a flaring lipped vessel. Shell tempered and 7 mm. in thickness. Estimated size at rim 9 inches in diameter. Flat lip.

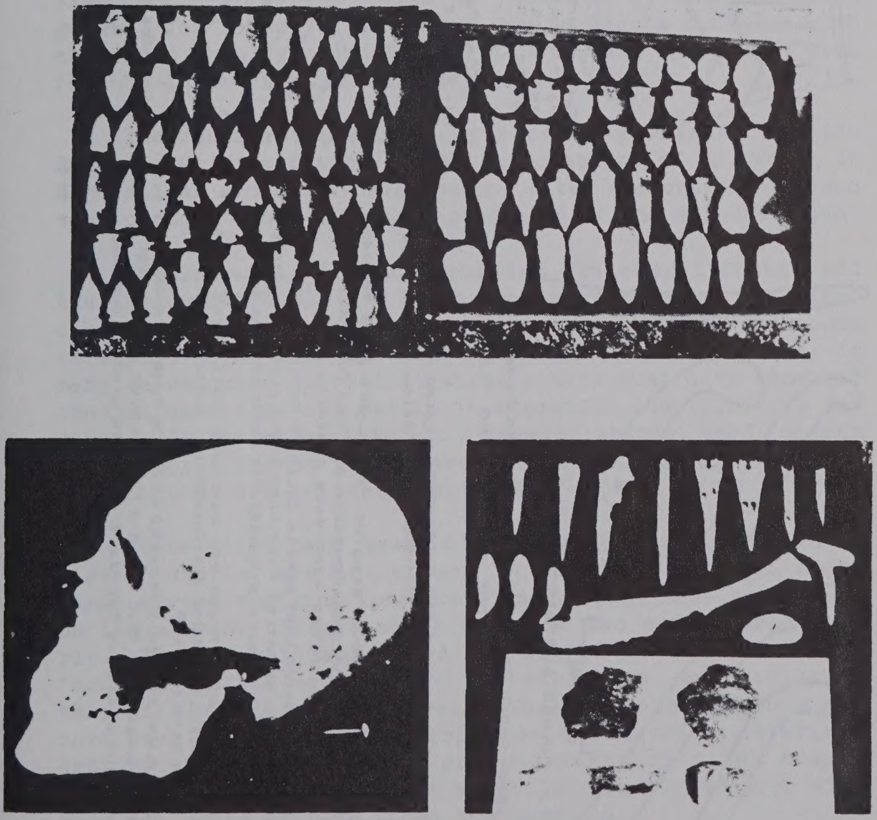
No.2. Could be a fragment from the rim of a bowl. It is grit tempered, with both inner and outer surface smoothed. Thickness 10 mm. Estimated size 9 inches.

No.3. Shell tempered, oval and slightly flanged lip, thickness 6 mm. Estimated size at rim 9 1/2 inches in diameter.

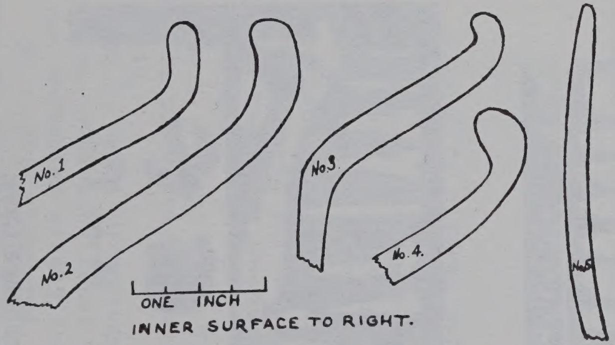
No.4. Inner and outer surface smoothed, flaring lip, shell tempered. Slipped finished. Estimated size at rim 7 1/2 inches in diameter.

No.5. Decorated sherd found. Very thin at lip measuring only 6 mm. on the body. Shell tempered, gray in color, decorated with incised lines along the rim as shown in above figure. Estimated size of vessel at rim about 8 inches.

No.6. Sherd from shell tempered vessel about 6 mm. in thickness, with strap handle. The lip of the sherd is decorated with a series of punctations varying in length from 5 to 8 mm. and about 2 mm. in width. Estimated size of vessel at rim is 7 to 8 inches. Most of the sixteen sherds are roughly smoothed apparently with the hands. However Nos. 2,4,5 and 15 are more highly polished. This has the appearance of having been done with a paddle of smooth wood, bone or stone. No. 15 especially has almost a glazed finish on the outer surface.



Artifacts and Skull from Rockhouse Cave



INNER SURFACE TO RIGHT.

RIMSHERD PROFILES OF POTTERY TYPES FOUND IN MIDDLE-MISSISSIPPI SITES OF CLAY AND PLATTE COS. MO.

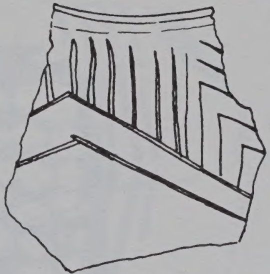
No. 1. IS A PLAIN SMOOTH RIM SHERD. GREY IN COLOR AND WITH A DENSE PASTE, IN WHICH THE TEMPERING MATERIAL SEEMS TO BE A FINE GRIT.

No. 2. IS PLAIN WITH A COLOR RANGING FROM LIGHT DRAB TO DARK GREY. IT IS HARD, HEAVY, SHELLTEMPERED AND HAS TINY PARTICLES OF GRIT SHOWING ON OUTER AND INNER SURFACES.

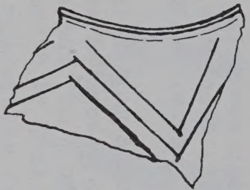
No. 3. IS A HEAVY SHERD, LIGHT DRAB IN COLOR WITH A GREY GRIT TEMPERED PASTE. HEMATITE PARTICLES AND A FINE GRIT CAN BE SEEN ON THE PLAIN SMOOTH SURFACES. THE SHOULDER WAS RATHER SHARP.

No. 4. IS LIGHT IN WEIGHT AND THE LIGHT GREY PASTE SHOWS CELLS WHERE THE SHELL TEMPERING HAS LEACHED OUT. SURFACES ARE PLAIN AND A LIGHT DRAB IN COLOR.

No. 5. IS A PLAIN SMOOTH RIMSHERD ON WHICH THERE IS A DARK RED HEMATITE WASH COAT. THIS SHERD IS FROM A BOWL WITH NEARLY VERTICAL SIDES. CELLS IN THE PASTE INDICATE LEACHED OUT SHELL.

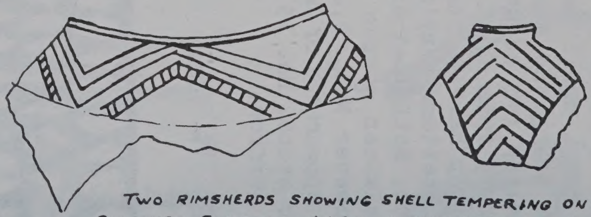


SHELL TEMPERED
LIGHT GREY PASTE
LIGHT DRAB SLIP COAT
DESIGN INCISED.



SHARPLY INCISED DESIGN ON A RIM SHERD, SEMIPOLISHED SURFACE, COLOR IS LIGHT DRAB TO DARK GREY. SHELL TEMPERED.

DECORATED RIM SHERDS FROM MIDDLE-MISSISSIPPI SITES IN PLATTE CO. MO.



TWO RIMSHERDS SHOWING SHELL TEMPERING ON THE POLISHED SURFACE WHICH IS DARK GREY AND BLACK. DESIGN IS INCISED. WITH A SHARP INSTRUMENT.

ON SOME SHERDS THE DECORATION IS A BROAD, TRAILED DESIGN IN A SOFT SLIP COAT.

3 INCHES

Hopewellian and Middle Mississippi Remains from the Kansas City Area

By
J. M. Shippee
North Kansas City, Mo.

Following the example of James L. Lowe and others who have submitted reports of archaeological evidence from their neighborhoods, I want to offer for publication the accompanying sketches and notes on Hopewellian and Middle Mississippi material from the Kansas City area.

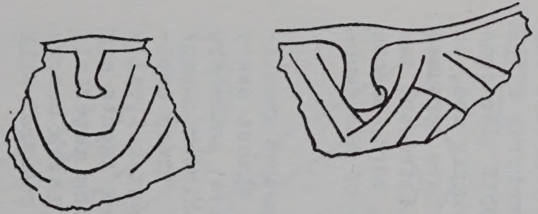
Some readers may find them interesting and useful for comparison with artifacts from the sites they explore. I know that pictures of material from distant areas will be welcomed by me, for in my search for Hopewellian potsherds over the state, my quest has usually been fruitless. If other members will help with this effort, some interesting facts may come to light. For those making the reports or sketches their efforts will be rewarded by the knowledge gained, for I know of no better way to become familiar with artifacts than by measuring, sketching, and describing them for the instruction of others.

Incidentally, preliminary reports published by the Smithsonian Institution on the explorations of Dr. Wedel in Hopewellian and Middle Mississippi sites are obtainable; and they contain about a dozen photographs of the objects found.

Supplementing the accompanying sketches I should add that undecorated rim and body sherds on Hopewellian sites are found, but to my knowledge no restorable pots have come to light. Some vessels were decorated very simply and, in many cases quite hurriedly; while others must have consumed considerable time and skill, in executing the intricate designs. In both the plain and decorated sherds, hard, smooth and finely tempered pieces are noticed. Some of the decorated pieces are polished inside and out.

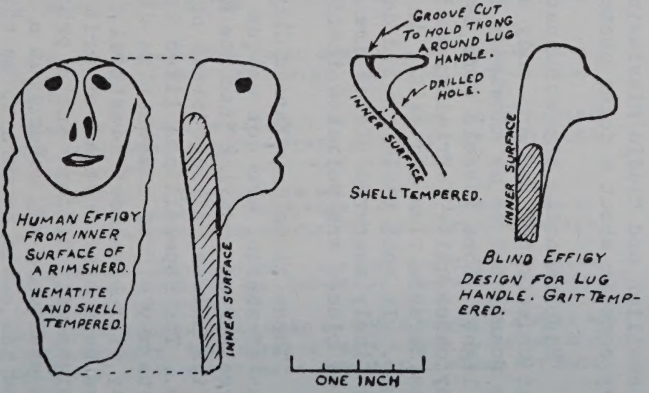
These sites near Kansas City, which produce such quantities of sherds, are not unique in Missouri. Almost every large stream emptying into the Missouri must have, somewhere on its shores, village sites of these two prehistoric people. The Hopewellians liked the big rivers. Their artifacts may differ somewhat in distant areas, but basically they will be almost identical. Shell or other agents may have been used instead of grit for a tempering material, designs will differ, and a preponderance of thick coarse tempered ware may occur; but a little careful research will show the basic pattern to be the same.

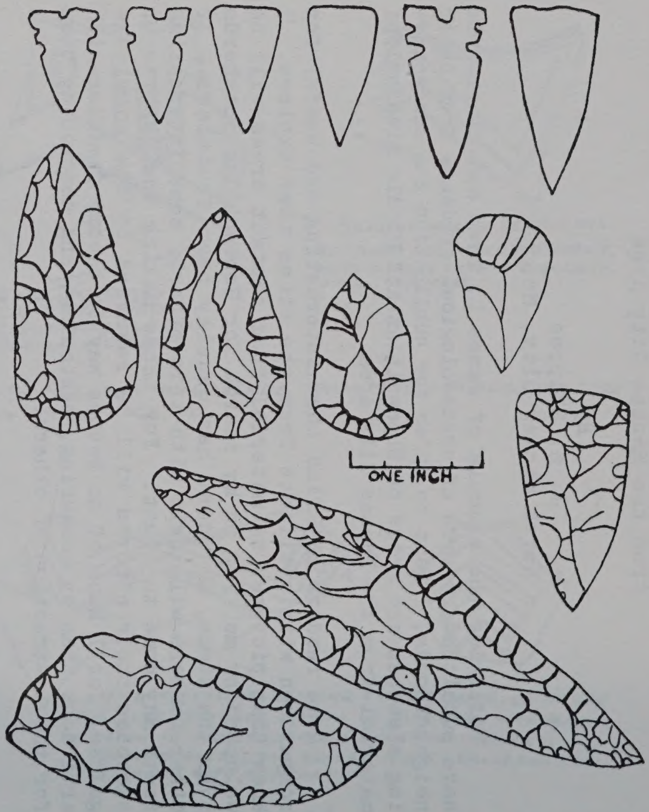
With the information that many of you have, a good report can be made. This is our Society and our state, and it is up to us to work out its archaeology.



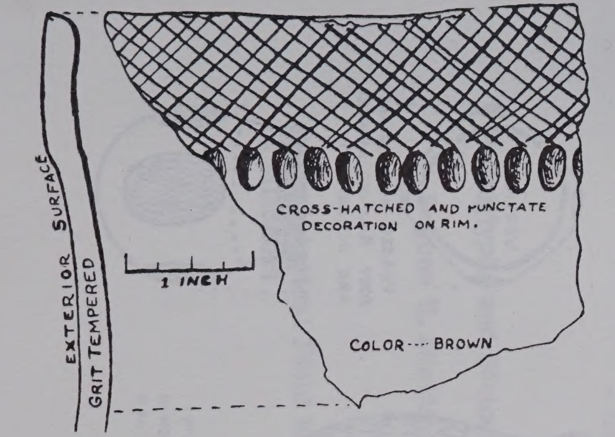
Two dark grey, shell tempered rim sherds with loop handles

Handle types of pottery from Middle Mississippi sites in Platte Co. Mo.

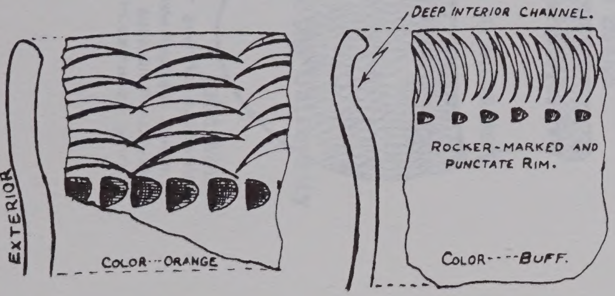

Human Effigy from inner surface of a rim sherd. Hematite and shell tempered.
Inner surface
Groove cut to hold thong around lug handle.
Drilled hole.
Inner surface
Shell tempered.
Inner surface
Blind Effigy design for lug handle. Grit tempered.
One inch

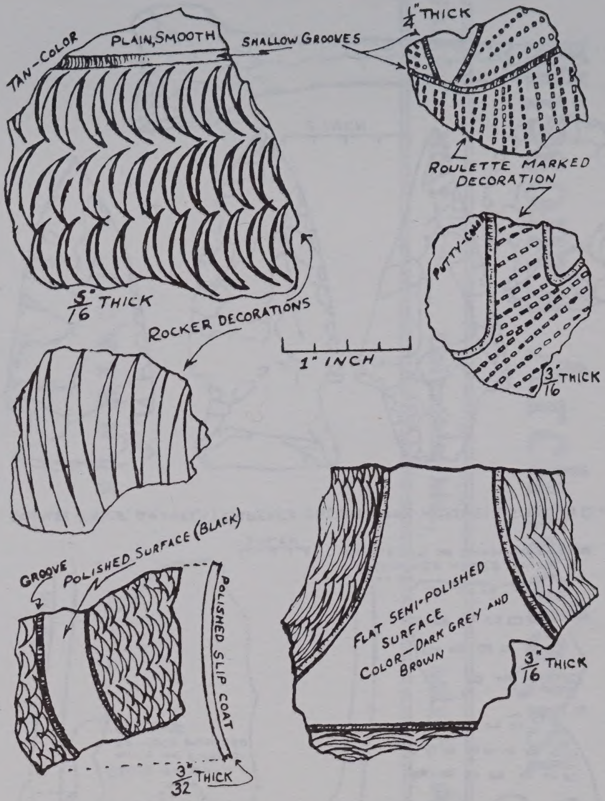


Chipped stone, Mississippi sites, Platte and Clay Co., Mo.

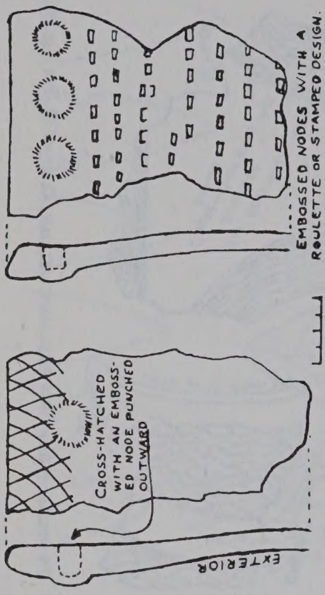

EXTERIOR SURFACE
GRIT TEMPERED
CROSS-HATCHED AND PUNCTATE DECORATION ON RIM.
1 INCH
COLOR ---- BROWN

TYPICAL HOPEWELLIAN RIMSHERDS, CLAY AND PLATTE CO., MO.

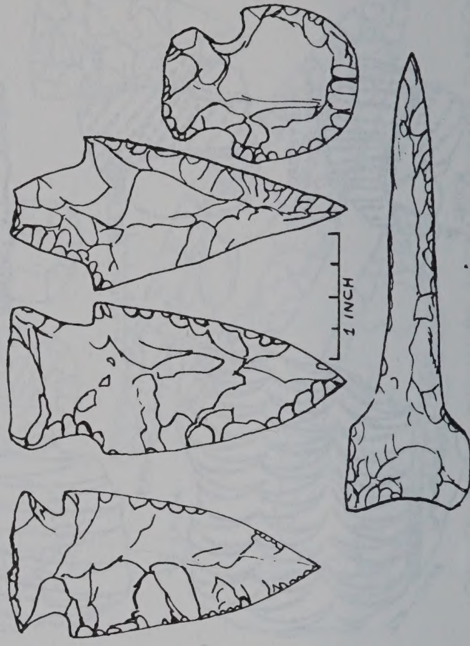

DEEP INTERIOR CHANNEL.
EXTERIOR
COLOR ··· ORANGE
ROCKER-MARKED AND PUNCTATE RIM.
COLOR ---- BUFF.


TAN-COLOR
PLAIN, SMOOTH
SHALLOW GROOVES
1/4" THICK
ROULETTE MARKED DECORATION
PUTTY-COLOR
5/16" THICK
ROCKER DECORATIONS
1" INCH
3/16" THICK
GROOVE
POLISHED SURFACE (BLACK)
POLISHED SLIP COAT
3/32" THICK
FLAT SEMI-POLISHED SURFACE
COLOR—DARK GREY AND BROWN
3/16" THICK

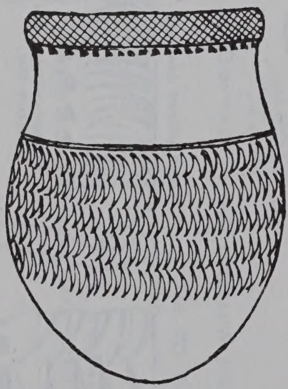
TYPICAL BODY SHERDS, HOPEWELLIAN, CLAY AND PLATTE CO., MO.


CROSS-HATCHED WITH AN EMBOSSED NODE PUNCHED OUTWARD
EXTERIOR
1 INCH
EMBOSSED NODES WITH A ROULETTE OR STAMPED DESIGN.

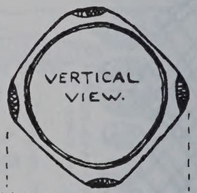
COARSE, THICK, GRAVEL-TEMPERED SHERDS FROM HOPEWELL SITES IN CLAY CO.



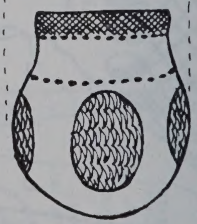
CHIPPED STONE FROM HOPEWELL SITES IN CLAY AND PLATTE CO.



VESSELS OF THIS TYPE, UP TO 17 INCHES IN HEIGHT WERE COMMON IN HOPEWELLIAN VILLAGES IN CLAY AND PLATTE COUNTIES, MO.


VERTICAL VIEW.

VESSEL WITH SQUARED BODY. ROUNDED CORNERS ARE DECORATED.



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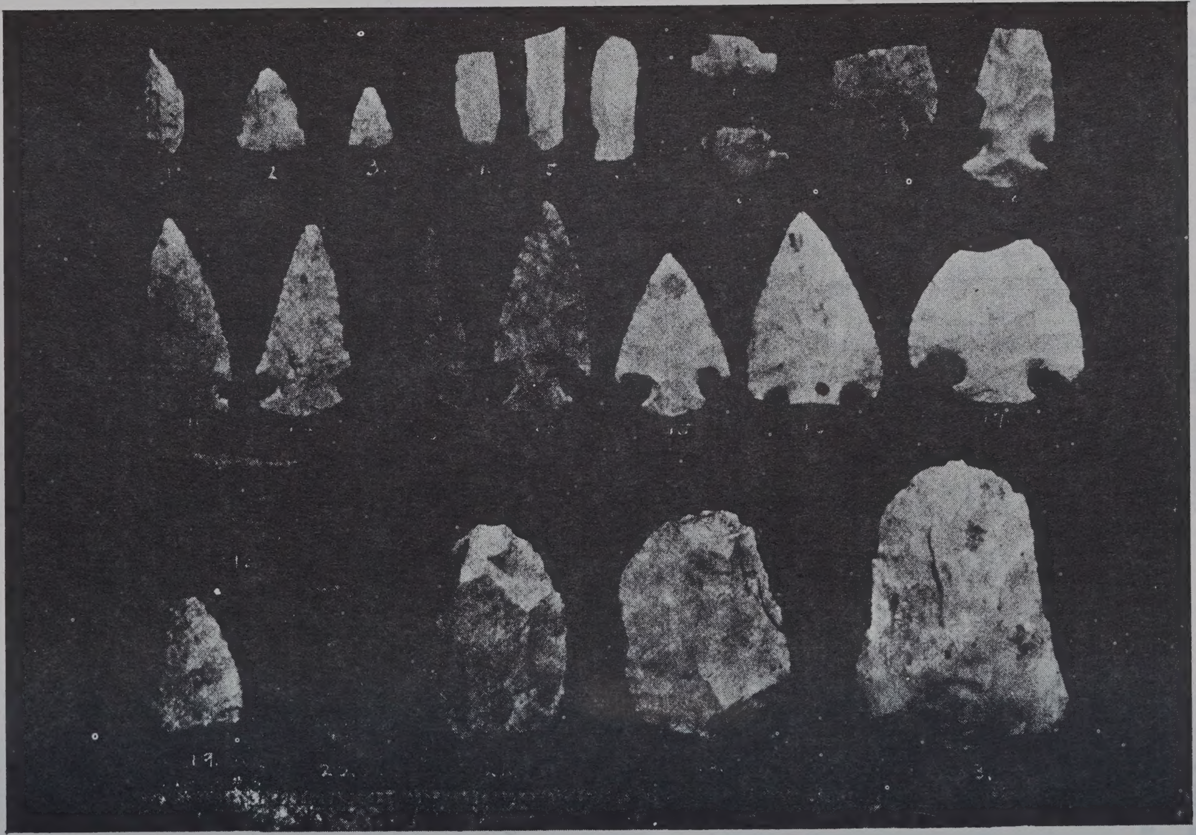

Pl. I - Artifacts from Hopewell-like Site

SURVEY OF A HOPEWELL-LIKE SITE NEAR ST. LOUIS

by

Leonard W. Blake

Creve Coeur Lake, a slough formed by the Missouri River, is about ten miles northwest of the city of St. Louis and is well known locally as a place of recreation. To all appearances, it was no less popular with the prehistoric peoples, as shown by the numbers of flint chips, broken implements and pottery sherds scattered over the bluffs which rise immediately east of the lake. The combination of a body of water, supporting fish and waterfowl, fertile and easily cultivated river bottom lands, and steep bluffs suitable for readily defended village sites, must have been attractions, as well as the nearness of the great waterways of the Missouri, Mississippi and Illinois Rivers. Evidences of varieties of both Woodland and Mississippian occupation have been observed here. At one place on the bluffs, covering about two acres near a small stream, numerous pottery sherds with Hopewellian characteristics have been found. Many of these sherds are similar to those described by Cole and Deuel[1] from locations some hundred and fifty miles to the north near the Illinois River.

The figures and photographs with this article will give some idea of the types and decorations of sherds found there. Nearly all the sherds found on this site seem harder than most found locally, but they all can be slightly scratched with the finger nail, even when quite dry. The tempering material ranges from a rather coarse to fine glistening grit, the particles of which seem less rounded than sand. Mr. Carl Chapman, who recently visited the site, suggested that it may be crushed granite. Several pieces of pink, granular granite, particles of which seem identical to those in the sherds, were found there.

Many of the sherds gathered are so weathered or broken that all possible characteristics can not be observed. However, in a very general way the rim sherds may be considered

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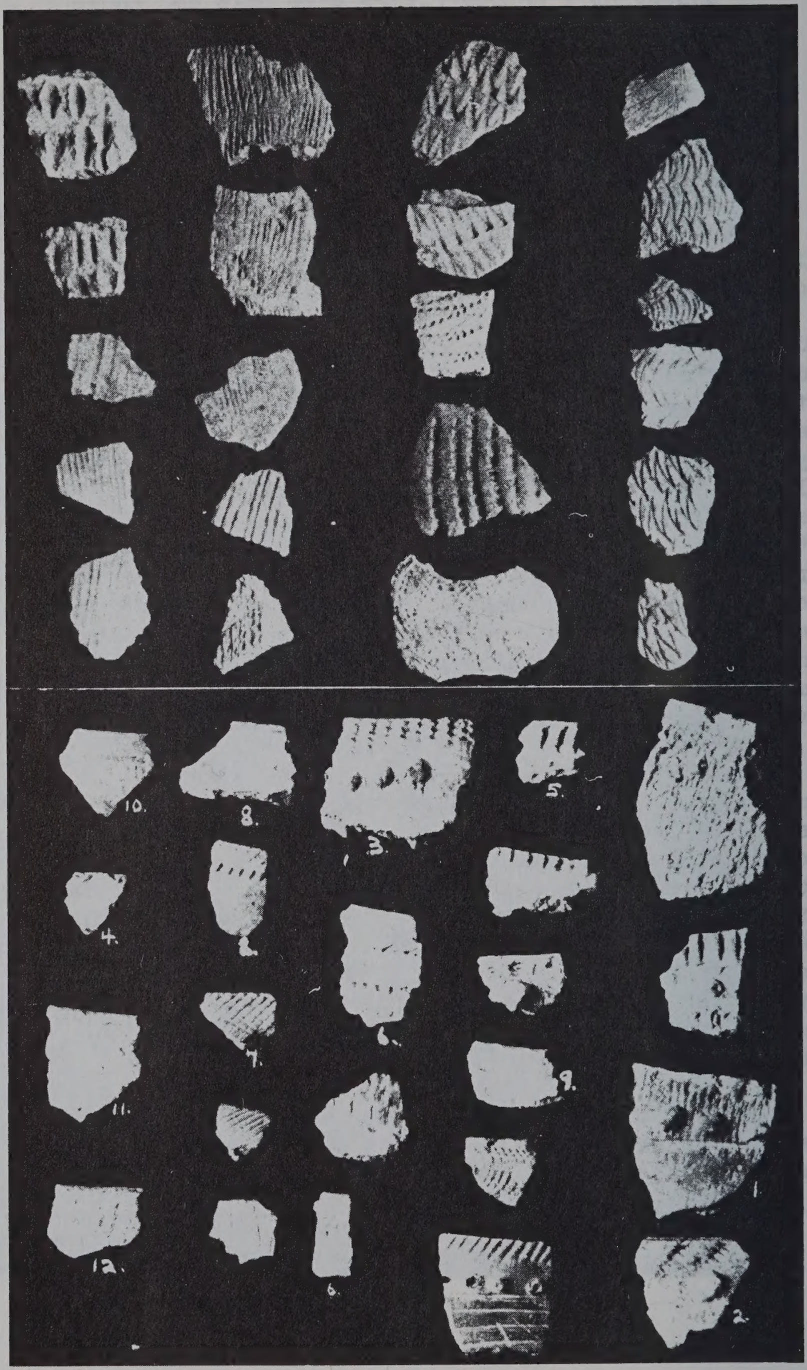
[1] Rediscovering Illinois (University of Chicago Press, 1937)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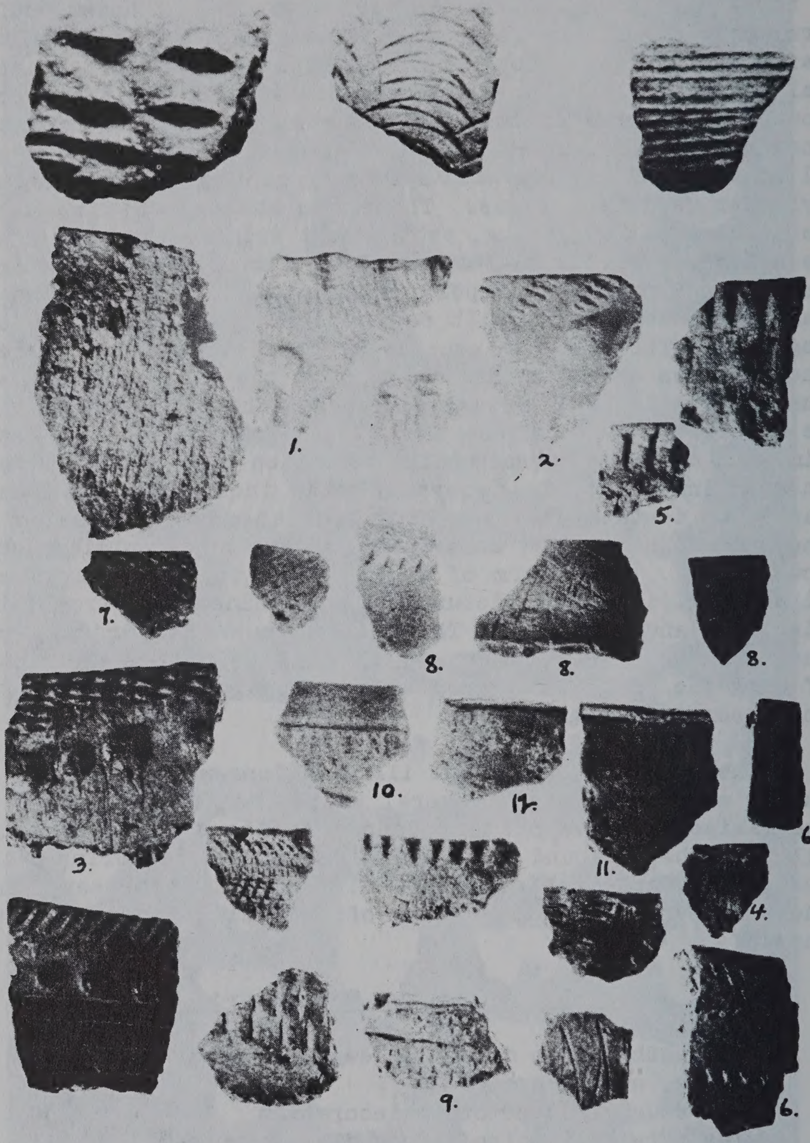
Pl. II - Sherds from Creve Coeur Site

of two sorts. There are those of a rather coarse ware about 8 to 10 mm. thick, with paste various shades of brown, buff, gray or red. Lip surfaces when flat are often inclined toward the interior, though rounded lips also occur. Principal decorations are bosses which occur in a straight horizontal row on the outside of the rim, pushed out from the inside with a round hollow instrument, and vertical or diagonal notching of the rim with a smooth, cord-wrapped or notched cylinder used as a stamp. These rim sherds sometimes show vertical cord roughening, though most are smooth. The other is a finer ware, usually about 5 to 8 mm. thick, sometimes less than 5 mm. The tempering material is not apparent in many of these, but when it can be seen, is a fine glistening grit. The paste is usually gray or buff, and one sherd shows traces of a possible red slip on the outside. The main characteristic is a narrow, horizontal channel about as wide as might be made with the forefinger on the inside of the rim with a slight corresponding collar on the outside, which, in most instances, is decorated with incised lines, punch marks, or dentate stamps. Many body sherds, apparently of the same sort of ware, show curved zigzag lines (plain rocked roulетting). This form of sherd seems to tally very well with descriptions and pictures of Hopewellian pots from Ohio, Wisconsin and Illinois. There are a number of rim sherds that seem to fall between and to partake of the character of both the sorts described above, though there are a few that seem quite different.

The sherds shown in the illustrations were picked up at random over a period of several years and give some idea of the varieties of decoration found on this site. Recently, all body sherds found were picked up, on several trips after hard rains, in an effort to obtain a fairly true sampling. The following list shows types of decoration on these body sherds.

Decoration on Body Sherds

Too weathered to determine decoration, if any	31
Smooth, not decorated	52
Cord-roughened, no other decoration	30
Wide parallel incised lines close together	11
Miscellaneous thin incised lines	7
Plain rocked roulетting	37
Straight dentate stamp, applied in zigzags	3
Straight dentate stamp	2
Curved dentate stamp	1
Cord-wrapped cylinder stamp	1
Thumb nail depressions	1
Total	176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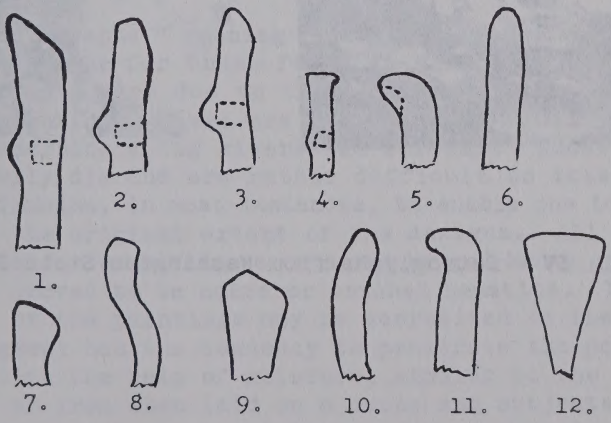
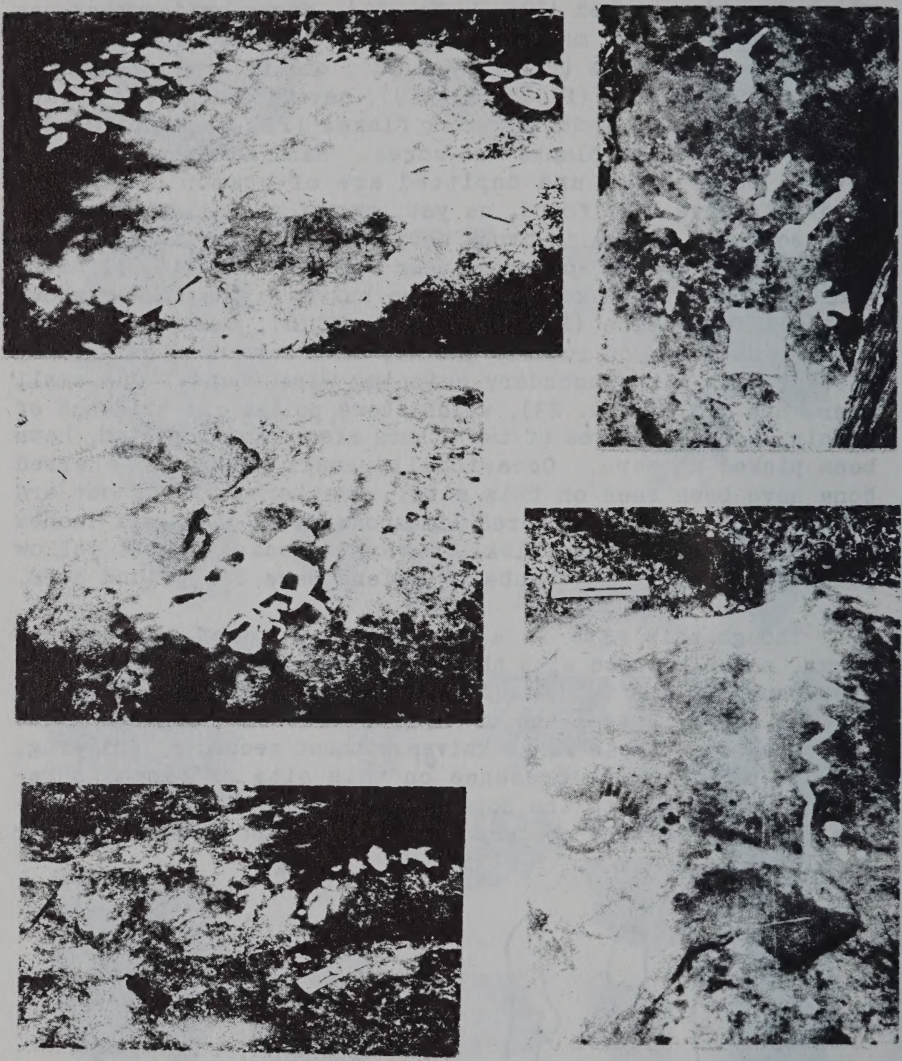
Pl. III - Sherds from Creve Coeur Site

As will be seen in the illustrations, most of the projectile points are hooked notched with rounded bases. One, which is side notched (Pl. I, No. 11), shows evidence of use as a reamer. Other material found here includes two broken sandstone whetstones (Pl. 1, No. 18), one triangular scraper with a rounded edge (Pl. I, No. 19), several large end scrapers and fragments made of thick flakes (Pl. I, Nos. 20, 21, 22), several chert blanks and cores. Hand hammer stones and anvils, both pitted and unpitted are of common occurence. No drills have been found, as yet, except a small chert spicule, somewhat square in cross section with chipping like that on the small drills so common near Cahokia Mound in Illinois. A close lookout was kept for flake knives. The flakes shown in the illustration (Pl. I, Nos. 4, 5, 6), seem longer and thinner than common locally and may have been used as knives. A few flakes with secondary chipping were found. One small chert hoe (Pl. I, No. 23), which shows polish and evidence of rechipping, and pieces of two others also showing polish, have been picked up here. Occasionally small pieces of charred bone have been seen on this site. Scattered throughout are numerous pieces of weathered limestone up to about six inches across and two inches thick. Several pieces of soft yellow limonite and one small cube of galena have been found here.

Though this site is a mixed one, some of the pottery forms, notably those with the collar and channel, and decorations such as the various forms of stamping and rouletting as well as the prevalence of the hook-notched points and the presence of possible flake knives without secondary chipping, seem to point to the presence on this site of a people related in some way to the Hopewellian. It is entirely possible that some of the pottery sherds were left by even earlier peoples.



Cross sections of rim sherds from Hopewell-like site near St. Louis. Numbers correspond to those in photographs. Outside of sherd is to the left.



Pl. IV - Petroglyphs from Washington State Park

PETROGLYPHS AND PICTOGRAPHS IN MISSOURI

by

Eugene H. Diesing
in collaboration with

Frank Magre

The fact that Missouri is rich in Indian lore is becoming well known, but a picturesque portion of this lore, the petroglyphs and pictographs, although very abundant in this state, is not generally known or discussed. Scattered accounts are found in various publications, but they are a mere sampling of the great numbers that are to be found. From reports received from various sections of the state, it appears that these Indian works are well represented here. So far a total of about 42 sites, where these remains are to be found, have been recorded.

The writer has visited ten of these sites and has recorded, photographically, the various designs found there. These have been recorded in color, as well as in black-and-white photography. The color photography has been found to be the most satisfactory for pictographs as they are painted with a red pigment which does not record well on black-and-white film. The petroglyphs lend themselves to photography due to the fact that the designs may be treated with a white water paint, before photographing, thereby making it possible to obtain the desired contrast.

Due to the general lack of familiarity with this phase of archaeology, a brief explanation of terms is in order.

"Pictographs," meaning picture writings, although probably a misnomer for those found in Missouri, are less frequently found here due to the less durable medium used in their execution. These are to be found, usually, on bluff faces occurring along rivers and streams. Those remaining are usually dim and are rather difficult to interpret, but enough remains, in most instances, to enable one to gain some idea of the original extent of the designs. All the paintings thus far examined are of a red or red-brown color. This pigment proved to be ochre or crushed hematite. The lasting quality of the paintings may be accredited to the fact that this pigment has the tendency to penetrate the pores of the stone, with the help of moisture, similar to the rusting of a piece of iron when laid on a stone and subjected to rain. Instances have been recorded where this penetration has been found to be as much as an inch in depth. This property of the pigment also accounts for the general blurring of the designs. This blurring has resulted, in some instances, in the almost complete obliteration of the original design. Many such stains are to be found but are impossible to interpret.

"Petroglyphs," meaning carvings in stone, are found in stone outcrops, ledges, and bluff faces and cave walls. These are found to be more abundant than pictographs, probably due to their more durable nature. The majority found to date are on horizontal surfaces. The designs cover a wide assortment of figures, symbols, and indescribable marks. All are intaglio. Those most easily recognized as representing known subjects are human footprints, bird tracks, birds, human figures, snakes, turtles, animals, and human hand prints. These designs seem to have been pecked, or scraped, into the stone surfaces, by means of stone or bone instruments.

A comparison of the symbols or designs executed in both mediums, at the sites examined thus far, shows a marked difference, although some figures are represented in each. Pictographs, in general, depict more elaborate designs than those of the petroglyphs. Fine examples of life-size and nearly life-size figures of man and beast may be found. This has not been the case with petroglyphs, at least up to this writing. This may be attributed to the fact that the application of the paint could be done with greater ease and accuracy. This fact, however, may also be attributed to execution by different cultures. However, some figures have been found represented in both mediums. The figures found thus are concentric circles, bird tracks, wavy lines (snakes), and human figures.

There seem to be two distinct phases of this work. One may be described as having a symbolic or religious aspect. The other seemed to be an attempt to record a conspicuous event. Each may be further subdivided, but only the general phases will be mentioned here. The former may be accounted for by the appearance of large groups of figures, concentrated in a relatively small area, the individuals of which do not seem to have any direct relation to one another. These figures are usually symbolic, in appearance; and, with the exception of minor variations, are the same from site to site. Under this division may be classed the offering made to the spirits to compensate for the removal of some object or supply such as water, food, or material for tools, from the site by the artist. Another may be the sacrificial aspect where the individual has executed the figure in devotion to a particular spirit at this site which was a sacred area.

The second phase is suggested by the fact that the figures are found with definite relation to one another, such as in a dance or battle. This no doubt recorded an event. One especially fine example of this is to be found on a bluff along the Salt River, in Ralls County, Missouri. Here, judging by the positions of the human figures, their apparent activity, and the presence of weapons in their hands poised for action, there is little doubt that the scene depicts an important battle. No other record of this type has been found in this state to date.

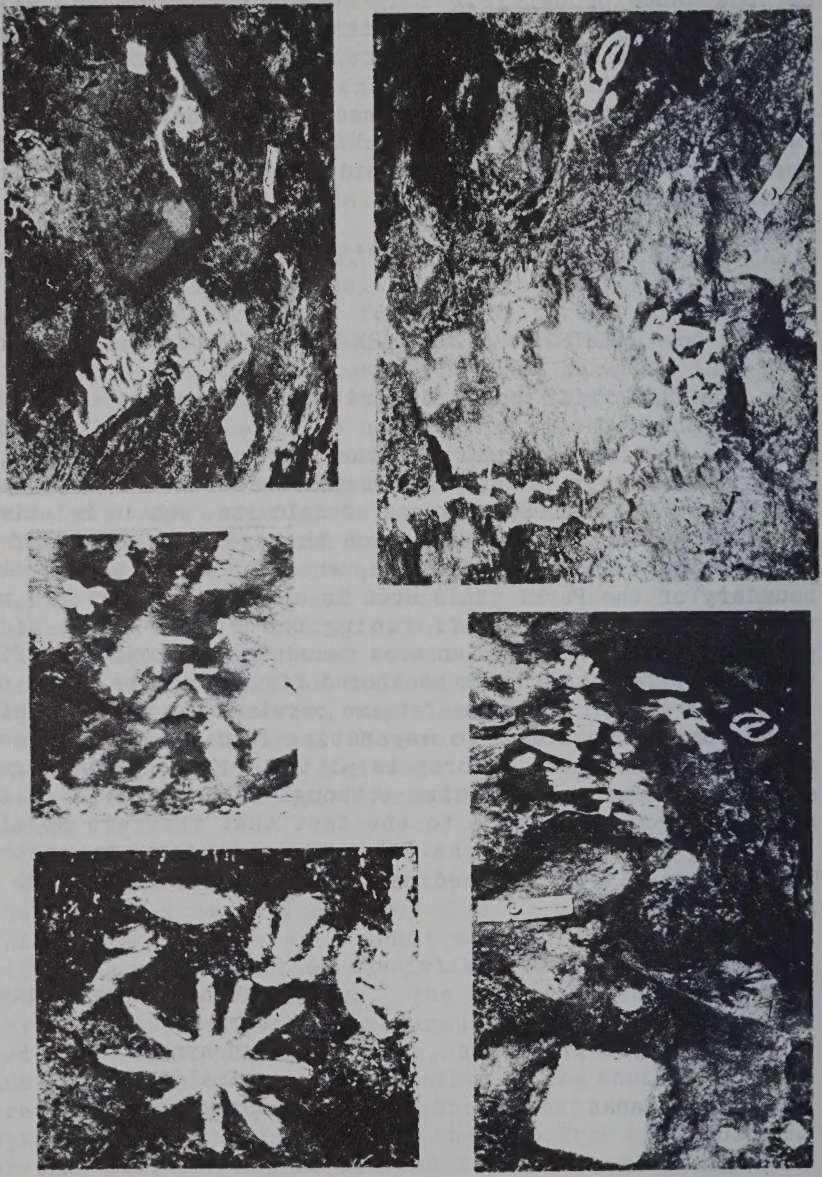
****

WASHINGTON STATE PARK PETROGLYPH SITE

The first site to be described here is one containing petroglyphs. The major portion of this site is located along the southern boundary of the Washington State Park, in Washington County, about eleven miles southwest of De Soto, Missouri. The outcrop consists of dolomite, and is relatively level. The outcrop is located on the crest of a spur of the ridge surmounting the Big River, whose shore is the northern boundary of the Park. This area is about a quarter of a mile from the edge of the bluff facing the river. Most of the petroglyphs are found in an area measuring approximately fifty by seventy feet, although scattered figures may be found outside this area. Hundreds of these carvings may be seen, after one becomes accustomed to separating them from the erosion marks with which the outcrop is pitted. Most of the figures are fairly easy to recognize although some are difficult to separate from others due to the fact that they are so close together. Some seem to be superimposed upon one another. The most easily recognized carvings may be likened to the following:

spirals
wavy lines
human figures
human foot-prints
birds
bird tracks
turtles
cups
rectangles and squares
arrows
sun symbol
animal tracks
snakes

Many other figures, of indescribable type, may be seen. Some that appear, other than those described, are: oval or horse-shoe shape with bisecting line ending with a cup; solid circle with triangular outline attached, resembling the outline of a keyhole; bowl-shaped depression with line or groove, ending with an arrowhead, extending from it; cup shaped depression with groove extending from it, the groove, in this instance, tapering from the cup out to the end.



Pl. V - Petroglyphs from Washington State Park

Special attention may be called to the latter figure as it seems to have had some special significance, since it is found at nearly all sites where groups of petroglyphs are found. Detailed description of the most common figures follows:

Cups:

The cups, or cup-shaped depressions, range in size from an inch, or smaller, to three and four inches in diameter, and are relatively hemispherical in shape. These cups, especially the smaller ones, are similar to those found in "cup stones." They were evidently made by circular motion of a cylindrical stick or stone, with the aid of an abrasive. These have been accredited to utilitarian use but their presence in such large numbers in association with other petroglyphs make this theory seem groundless. The cups have been found to be integral parts of some of the figures.

Birds:

The bird figure is found in great numbers on this site. Practically all have squared shoulders, spread tail, triangular bodies, and a curved appendage representing the head. Some, especially the larger ones, have a fairly well defined head and a curved beak. ,The general features, as produced expecially in the larger figures, resemble those of a hawk or eagle, and are thought to represent the thunder-bird. Two excellent bird figures are to be seen here. One occupies a space of about 26 inches by 26 inches, and is exceptionally well executed. This figure has well defined features, including the claws which extend to the left and seem to be grasping another, but smaller, bird. Traces of parallel grooves still appear in the tail and appear to represent the individual feathers of the tail. This figure is deeply cut and is well preserved. Apparently meant as a part of the figure is a curved line, ending with an arrow head and with another arrow head superimposed upon it, which is adjacent and seemingly connected to the beak of the bird by another figure which resembles that of a human being.

Another bird, very well executed, and measuring 20 inches, is to be seen not far from the one just described. This bird has a well defined head, tail, body, and legs showing the claws. Two pairs of beaks, both open, are present. Closely associated and immediately above the head of the bird is a large foot-print of a human. One of the squares is also closely placed, in fact touches the tip of one of the wings of the bird.

The bird figures are found to be the most abundant on this site. They range in size from four inches to the size of the birds described before. The bird is also well represented on other sites visited.

Human Figures:

Those figures thought to represent humans resemble the birds in some respects and upon first observation may be considered as being a modification. Upon closer inspection the following points must be observed: the head consists of a cup and is usually disconnected from the body; the arms, although extending from square shoulders, are not pointed at their ends as in the case of the birds; the bodies are oval shaped; the lower extremities consist of a bifurcation and, although they resemble the tail of a bird, they appear more as legs. Only a few of these figures show any indication of being in action.

Human Footprints:

The human footprints observed on this site are solid cut-out figures. This figure is one commonly found among petroglyphs throughout this continent, and is well represented at the Missouri sites. They are numerous on this site and, with few exceptions, are shown complete with the toes. They range in size from about four inches to twelve inches in length. In no instance do these footprints show any sequence to simulate the tracks left by a person walking. The relative frequency of this design, with no agreement in size, series or sequence, or any relation with one another is a strong indication of symbolism.

Bird Tracks:

Figures resembling the tracks made by a turkey or other three-toed bird are commonly displayed nearly everywhere that petroglyphs or pictographs are found. At this site three of these figures may be seen. No apparent series or sequence of these figures is evident.

Spirals:

Spirals are also common on these sites. The one example found here seems to indicate a coiled snake, as the outer end expands and is bifurcated as though to indicate the open jaws. This, however, is contrary to the natural habit of the snake in that the head is inside the coil in life.

Squares and Rectangles:

These are found on this site as a solid cut-out figure or a groove outline. The solid figure predominates. The significance of this figure cannot be estimated but it is thought that it could represent a house or wigwam.

Wavy or Zigzag Lines:

Many of these may be observed at this site. Most of these have an expanded end, sometimes in the shape of an arrowhead and sometimes more nearly like an oval. Some have the appearance of a snake in motion.

Cup with Groove

Special attention is called to this figure for, although it does not seem to resemble any common object, it seems to have had some special significance to the Indian artist. It is found with at least two variations at three of the sites examined thus far. It is found as a cup with an even-width groove extending from it and a cup with a tapered groove.

Oval with Bisecting Line

This figure, like the "cup with groove," is found, with variations, at numerous sites examined. This figure may be compared to a horseshoe with bisecting line extending not quite to the opening at the calks. The line usually ends with a cup and may be compared to the "cup with groove" described heretofore. This figure may be the same as those described in various publications as that of a "horseshoe."

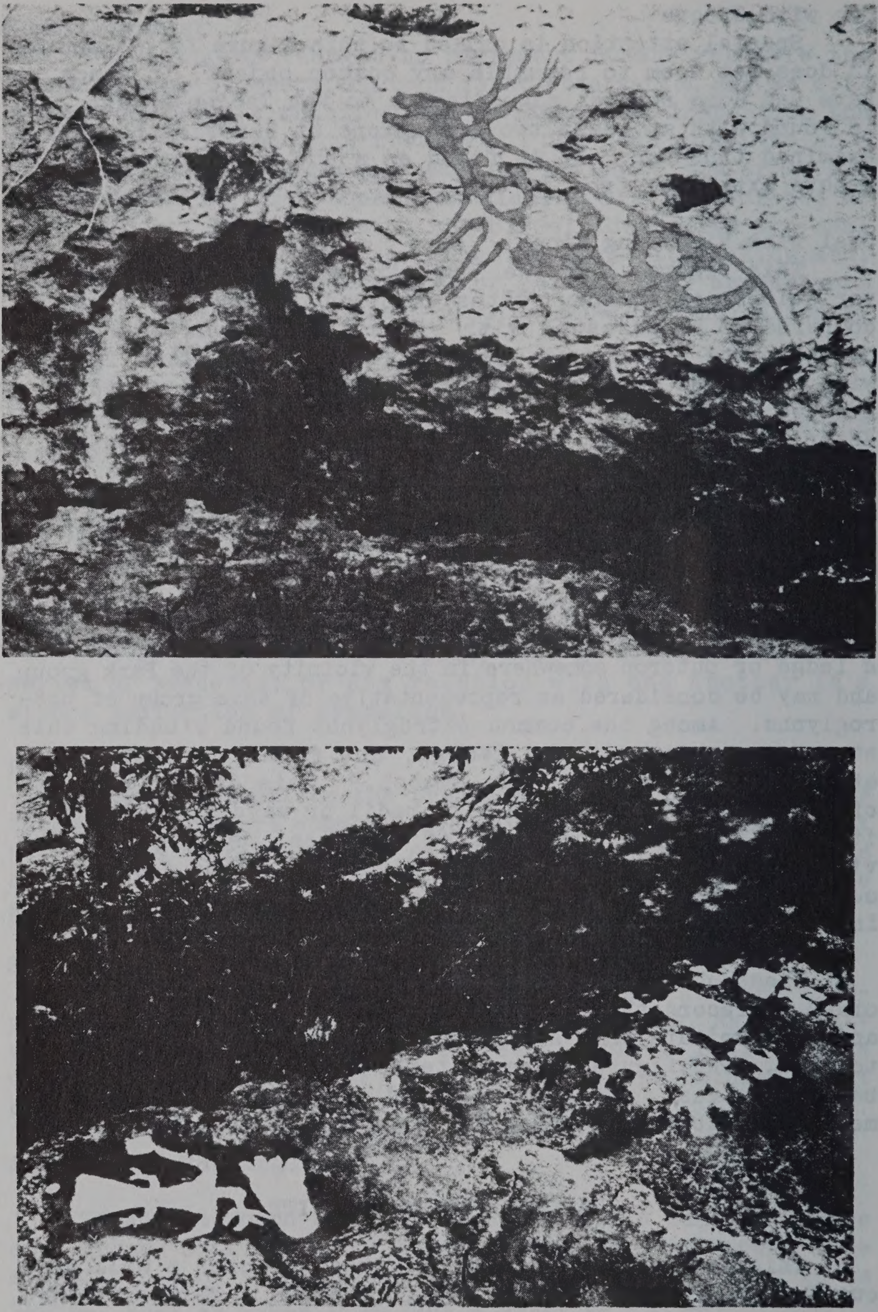
The accompanying photographs, with one exception, were taken at the Washington State Park site. This exception is one of a block of stone, of the same geological formation as that of the outcrop in the Park, but was found to be in possession of a local resident and rests in the yard in front of his home. This stone was said to have been removed from a ledge or outcrop somewhere in the vicinity of the Park group and may be considered as representative of this group of petroglyphs. Among the common petroglyphs found studding this stone may be found a new design, not found among the ones at the site--that of a "sun symbol." This design consists of a solid circular figure with radii or rays extending from it. It is said by the older of the local residents of the vicinity of this site that this figure was to be seen on the outcrop, a portion of which was destroyed during road building operations.

These photographs were taken from the top of a ladder in order to record the greatest number of figures in one group, and to eliminate some of the perspective effect causing distortion. The figures were whitened with kalsomine to create better contrast. Without this aid the figures would be almost impossible to distinguish from the erosion marks.

PAYDOWN PICTOGRAPH SITE

This site has the remains of what was once a well executed pictograph of a deer. It is located in Maries County, near the town of Paydown. The property is owned by Mr. Howell Picker.

The pictograph is painted on the perpendicular face of a bluff, whose height is about 70 feet above the normal level



Pl. VI - Above - Pictograph near Paydown
Below - Petroglyphs from Washington State Park

of the Gasconade River, which flows at its base. This particular section of the bluff face is parallel to the river and faces southeast. The bluff is of limestone. The painting is about head high, at its lower extremities, above the talus and ground level at the base of the bluff. The shore line, at this point, is about twenty feet from the face of the bluff and is studded with large blocks of limestone which had separated themselves from the bluff and tumbled down probably before the painting was executed. The talus slope and ground level is well covered with large trees and underbrush which affords ample protection from driving rains. The point where the talus slope meets the bluff is about 15 feet above the river level, thus protecting the upper portions of the painting, at least, from flood waters.

Immediately across the river, a small tributary called Mill Creek empties into it. The tributary is formed by the flow of Paydown Spring which emerges about a mile distant. This spring flows at the rate of 12,000,000 gallons daily. In the bottoms, along this tributary, and about a half-mile from the painting, several dome shapped mounds may be seen.

The pictograph is painted in a dull reddish color, characteristic of ochre or hematite. The figure measures 44 inches from tip of tail to tip of the muzzle, and is 26 inches tall from the bottom of the forelegs to the tip of the antlers. The horizontal axis of the figure is on a thirty degree slant, with the head highest. The head, antlers, forelegs, outline of the back, and the tail, are easily made out, but the middle section, hind quarters, and back legs, are nothing but a faded blur.

Special attention is called to the tail which is long and pointed, and resembles that of a short haired dog rather than that of a deer. This illustrates one of the characteristics of some of the animals depicted in pictographs and petroglyphs. It seems that the Indians over-emphasized or conventionalized certain portions of the figures. This may be found in numerous examples of this work.

No other figures or stains, showing the presence of additional figures, may be seen here. The figure is well hidden from the river by the dense growth surrounding it, but it is possible to see it from the river after the leaves have fallen. Local residents say that this was quite distinct when the pigment was brighter many years ago.

An attempt will be made by Mr. Frank Magre, and the writer of this paper, to record the numerous paintings and carvings executed by the aboriginal residents of Missouri. A total of about 42 sites, where these records may be found, have been recorded to date. Ten of these sites have been visited, so far, photographic records and relative data have been taken and filed, and with good luck the remainder of these sites, and others that may be added, will be visited and recorded. Photographs have been taken in color, by the Kodachrome process, and in black-and-white. The color photographs, in the form of lantern slides, are being made for lecture purposes and for further study, especially in the case of the paintings which do not record well in black-and-white.

Representative impressions are being made of various figures, depicted in the carvings, in plaster-of-Paris. Replicas have been made from some of these and will be loaned to various museums for display to the public. Two exhibitions of these replicas have been made, one at the Missouri State Fair of 1940, and one at the Missouri State Fair of 1941. They have also been displayed at the 1941 Fall Festival at Marshall, Missouri, and the Southwest Sportsmen's Show of 1940 in St. Louis. Arrangements at this time are being made to place them on exhibit in the Missouri Resources Museum in the State Capitol.

It is the hope of Mr. Frank Magre and the writer to collaborate in compiling this work into a monograph on the subject. This work, in order to cover a representative cross section of these remains in Missouri, will be greatly aided with the help of the members of the Missouri Archaeological Society. It is our request that each member who is familiar with the location of a site, where either paintings or carvings are to be found, communicate with us. The receipt of photographs or drawings, especially from sections at a great distance from St. Louis or Crystal City, will be greatly appreciated. This information should be sent to either of the following:

Frank Magre
P. O. Box 225
Crystal City, Missouri

Eugene H. Diesing
5724 Coronado Avenue
St. Louis, Missouri

ARCHAEOLOGICAL FIELD WORK AT THE UNIVERSITY OF MISSOURI

by

John Mack

The University of Missouri sent out its fourth archaeological field party last summer (1941). The party was composed of Professors Brewton Berry and J. E. Wrench, and Carl Chapman, John Mack, James Lowe, and Martin Dickinson. Chapman was in the field continuously, beginning in early spring, and the others joined him from time to time on week ends. The entire party got down to work at the close of the University Commencement. Our aim last summer was to shed some light on the much discussed, but previously unknown, culture of the Osage Indians, who inhabited western Missouri until as late as 1825, when, after ceding their territory to the United States, they migrated to what is now the state of Kansas.

Before actually proceeding to the Osage, we spent a short time in completing the excavations at the village of the Missouri Indians, in Saline County. The report on this site has recently been published.[1] We then moved on to Vernon County, where we expected to find Osage remains.

Although a part of Vernon County had been surveyed in 1940, and several possible Osage sites had been found, Chapman and Lowe first of all conducted a, survey of parts of Vernon, Bates, St. Clair, Cedar, and Barton counties. They discovered evidence of at least three culture groups.

The typical sites over the entire area were small hunting camps, devoid of pottery, and with stone artifacts of Woodland type. Second, there were a few sites of Hopewellian type. Pottery on these sites was grit tempered, and decorated with punch and boss, roulette, dentate stamp, and cross-hatching designs. Third, there were the sites that we believe to be Osage. Since time and money were limited, the survey work was discontinued early in June, and we began a more thorough investigation of the sites believed to be Osage.

The four sites that are possibly Osage are within an area 5 by 10 miles, the long axis running east and west, in the north central section of Vernon County. Historical evidence indicated that the Osage before leaving Missouri had resided in or near this area. We knew, also, that they had been in contact with white traders, and the sites that we decided upon did show evidence of white contact. Major streams in this area are the Marmaton and the Osage rivers. Except for the northern section, which is rolling country, the area is characterized by fairly level terrain, which extends south and west into Kansas. Hilly land is to the east.

At only one of the four sites did we find pottery, the

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[1] Berry, Brewton, and Carl Chapman: An Oneota Site in Missouri. American Antiquity, Vol. 7, No. 3, Jan., 1942.

Indians apparently having discontinued making it when they were able to obtain metal vessels from white traders. This is, therefore, chosen as the type site, and others are discussed in the light of the data found here. We designated this as Ve:3.

The location of Ve:3 is similar in one respect to the other contact sites, in that it is situated approximately one-half mile from any sizeable body of water, and its position is such that a commanding view of the surrounding country is available.

The pottery from Ve:3 is buff to gray in color, and from 1/8 to 7/8 inch in thickness, and all but three sherds are shell tempered. Decorations are of four types: incised lines, punctations, finger impressions, and notching. Decoration areas are shoulders, outer rims, and lips. Handles are of the strap variety, attached from rim or lip to body. We have no evidence as to the number of handles. Rim shapes are straight to slightly curving. Shape of the vessels is unknown, since the sherds are small.

Chipped stone work includes small, triangular, unnotched points; large, stemmed projectile points and knives; small end scrapers; and large oval and rounded scrapers.

Ground stone artifacts are sandstone abraders, whetstones, pitted hammerstones, grooved arrowshaft straighteners, bun-shaped pestles of limestone, and cone-shaped pieces of sandstone, measuring 3/4 to 2 1/2 inches from apex to base. The pipes are variants of the equal arm elbow type made of catlinite and siltstone. There are two interesting stone pieces, "moulds," one with a circular design and the other a triangular. Perforated pottery disks were numerous.

Bone work includes antler chipping tools,"paint brushes," sharpened leg bones, and arrow shaft straighteners.

Throughout the site, and thoroughly mixed with the native material, were trade goods of white man's manufacture. These included parts of flintlock rifles; iron knives, axes, hoes, and projectile points; copper projectile points and spangles, parts of kettles; porcelain and glass beads; and clay pipes.

Within what appeared to be a house structure at site Ve:1 were found refuse pits with quantities of charred corn, and fireplaces. In the refuse pits and village debris were found quantities of split bones of deer and buffalo.

Except for the pottery, there is a marked similarity between the cultural materials from the four sites.

Further work will be necessary before we can say positively that we have discovered the archaeological remains of the Osage Indians; but there is already an abundance of evidence pointing to that fact.

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ARCHAEOLOGICAL SURFACE SURVEY OF NEW MADRID COUNTY, MISSOURI

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Robert McCormick Adams

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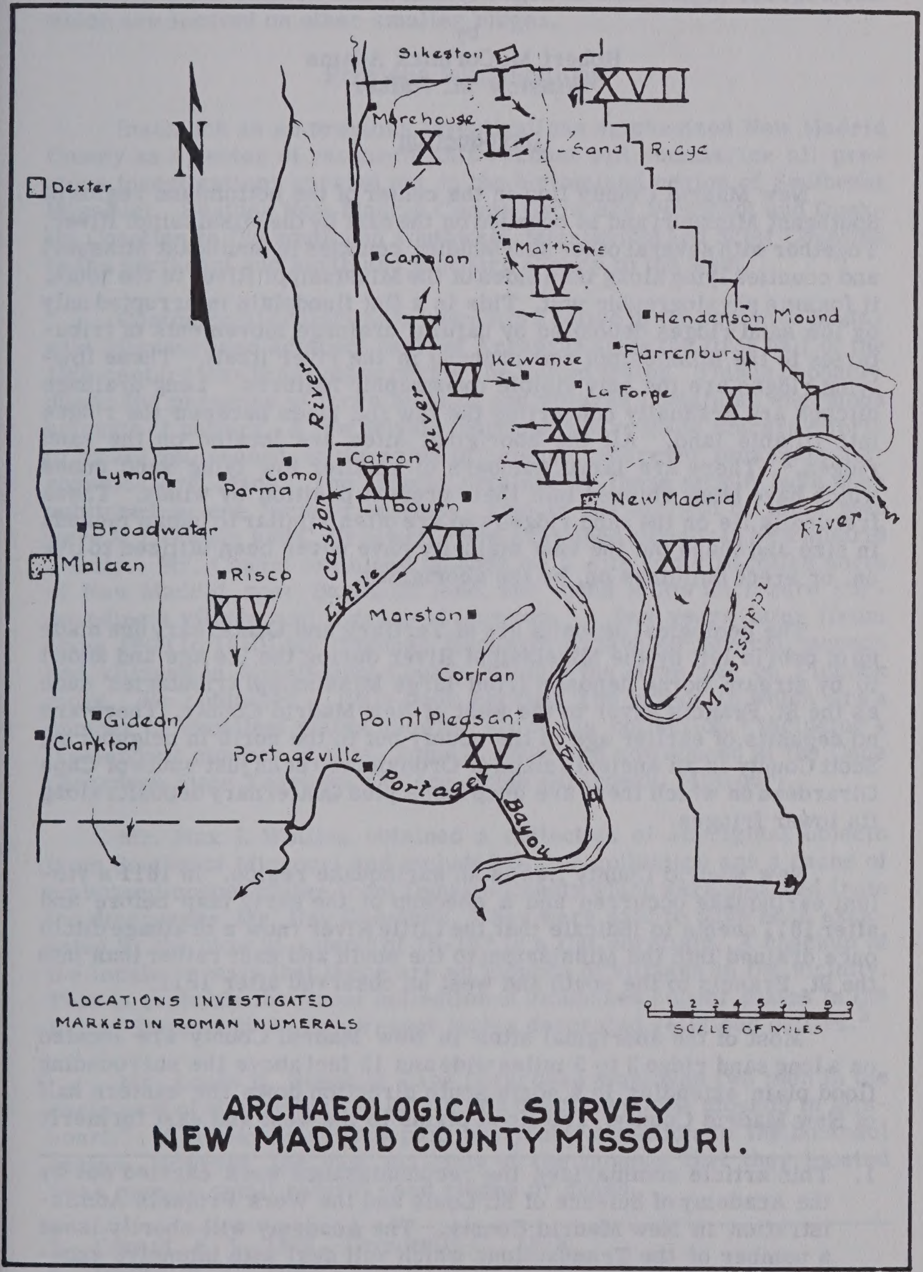
Sikeston
XVII
I
Morehouse
X
II
Sand Ridge
Dexter
N
III
Matthews
Canalon
IV
Henderson Mound
V
IX
Farrenburg
Kewanee
VI
La Forge
XI
Castor River
Little River
XVI
Catron
VIII
Lyman
Como
Parma
XII
New Madrid
Lilbourn
Broadwater
VII
River
Malden
XIII
Risco
XIV
Marston
Mississippi
Corran
Point Pleasant
Gideon
Clarkton
XV
Portageville
Portage
Bayou
LOCATIONS INVESTIGATED
MARKED IN ROMAN NUMERALS
0 1 2 3 4 5 6 7 8 9
SCALE OF MILES
ARCHAEOLOGICAL SURVEY
NEW MADRID COUNTY MISSOURI.

F.B.F. 2-11-42

FIG. 1

ARCHAEOLOGICAL SURFACE SURVEY OF NEW MADRID COUNTY, MISSOURI[1]

by
Robert McCormick Adams
Winslow M. Walker

Introduction

New Madrid County lies in the center of the bottomland region of Southeast Missouri and is bounded on the east by the Mississippi River. Together with several other surrounding counties in Southeast Missouri and counties lying along both sides of the Mississippi River to the south, it forms a physiographic unit. This is a flat floodplain interrupted only by low sand ridges deposited by natural drainage movements of tributaries to the Mississippi and changes in the river itself. These low-lying ridges are the only visible topographic features. Long drainage ditches are gradually converting the low flat lands between the ridges into tillable land. All the aboriginal sites are located on the sand ridges.[2] There are large numbers of smaller low lying sand dunes which have been whipped into their present position by winds. These frequently lie on the sand ridges and are often similar to Indian mounds in size and shape but the vast majority have never been utilized to live on, or erect buildings on, by the aborigines.

The geological deposits are of Tertiary and Quaternary age made up of debris left by the Mississippi River during the Ice Age and added to by stream borne deposits from large Mississippi tributaries such as the St. Francis River to the west of New Madrid County. There are no deposits of earlier age in the county but to the north in neighboring Scott County is an ancient island of Ordovician rocks just south of Cape Girardeau on which there are deep loess plus Quaternary deposits along its lower fringes.

New Madrid County lies in an earthquake region. In 1811 a violent earthquake occurred and a checkup of the early map before and after 1811 seems to indicate that the Little River (now a drainage ditch) once drained into the Mississippi to the south and east rather than into the St. Francis to the south and west as observed after 1811.

Most of the aboriginal sites in New Madrid County are located on a long sand ridge 2 to 5 miles wide and 15 feet above the surrounding flood plain extending in a north south direction down the eastern half of New Madrid County. The flood plains to the west and east formerly

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1. This article summarizes the reconnaissance work carried out by the Academy of Science of St. Louis and the Work Projects Administration in New Madrid County. The Academy will shortly issue a number of the Transactions which will deal with intensive excavations carried at one specific site.
2. We wish to thank the many people who helped us to locate aboriginal sites and to photograph their collections. Mr. K. K. Baker and Mr. J. I. Peck were particularly helpful.

were known as "West Lake" and "East Lake." The county seat of New Madrid lies at the southern terminus of this ridge. The sites are located along the eastern and western edges of this ridge, except a few which are located on other smaller ridges.

Previous Investigations

Inasmuch as no previous investigations emphasized New Madrid County as a center of research, this account will summarize all previous investigations carried out in the bottomland region of Southeast Missouri. Besides New Madrid County there are Pemiscot and Dunklin Counties to the south and southwest, Mississippi and Scott Counties to the northeast and north and Stoddard County to the west.

Commercial dealers have been more active in the region of Southeast Missouri and adjacent parts of Arkansas since the first half of the 19th century than in any other part of the United States. This is probably due to the presence of large mounds and villages containing enormous amounts of pottery. A few private individuals have made sincere efforts to locate and record, in the name of science, wherever important discoveries are made. The results obtained by these people have been published in one form or another. Two of the earliest of these men were A. J. Conant and C. Croswell,[3] who examined mounds in New Madrid County. Mr. Conant examined mounds on a site some 18 miles north of New Madrid, near Bayou St. John, and found a low enclosure surrounding a village and a group of mounds. A few years later (from about 1890 to 1910) Mr. Thomas Beckwith excavated several mounds and villages in Mississippi County, notably the large site on Pinhook ridge. He published a little book entitled The Indian, in which are a number of excellent plates showing all of his collection,[4] including a tremendous number of pots. Some of these are now housed at the Cape Girardeau State Teachers College, Cape Girardeau, Missouri.

Mr. Max J. Wulfing obtained a collection of aboriginal objects from Southeast Missouri and included in this collection are a cache of embossed copper plates from Dunklin County which were obtained from the discoverer, Mr. Ray Groomes. They were said to have been excavated by the plow at a depth of 16-18" in a flat cornfield. A checkup of the locale reveals that there are no mounds or villages in the vicinity. This is probably the finest collection of embossed copper plates in the United States and they represent highly decorated religious deities.[5]

Mr. Louis H. Houck of Cape Girardeau employed two men in the early part of this century to locate and describe all the mounds in Missouri.[6] It appears that they paid particular attention to the bootheel region. However, the vast majority of the mounds that they located were merely small natural sand ridges or dunes.

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3. Conant, A. J., 1878. Croswell, C., 1878.
4. Beckwith, T., 1911.
5. Fowke, G., 1910, pp. 96-98. (This publication has excellent illustrations of the copper plates.)
6. Houck, L. H., 1908.

Mr. K. K. Baker of Sikeston has been exploring mounds and cemeteries for the last two decades and his evidence has largely been reported in the local newspapers.[7] One investigation in particular is instructive. He explored and marked graves six miles southeast of Sikeston in which he discovered numbers of extended burials with pottery grave furniture.

Individuals, representing scientific institutions, who have excavated in the bottomland region of Southeast Missouri include G. C. Swallow, W. B. Potter and E. Evers, Cyrus Thomas and Clarence B. Moore.

G. C. Swallow, then State Geologist, and a member of the Academy of Science of St. Louis excavated three mounds near the town of New Madrid in the winter of 1857.[8] He excavated the big mound and a small mound of a mound group 1.5 miles west of the town of New Madrid (the Lilbourn group). In the big mound he reports having found burned remnants of a building at the base. Under this he reports having found a few effigy bowls and a few jars. One of the latter contained a human skull. Mr. Swallow recognized the existence of fine pottery vessels permeated with tiny shells and a coarser and thicker pottery. He also reports a mound 6 miles ENE of New Madrid in which he found a large amount of pottery beneath, the mound together with extended burials bunched close.

These burials were largely disintegrated and seemed to have been placed with feet toward the center and together, and pots at the head. Underneath the center were large quantities of ash and charcoal indicating some sort of burial ceremony.

W. B. Potter of the Academy of Science of St. Louis had Mr. Carl Henrich excavate and survey four mound and village sites in New Madrid County and one in Scott County.[9] Thanks to Mr. Henrich's relatively accurate surveys and innumerable and extremely valuable illustrations of pottery in the book, this is the most valuable single publication on the archaeology of the bottomland region. It is very regrettable, however, that Mr. Potter did not see fit to make known and thoroughly describe the artifacts and relate his pot illustrations to specific sites. All these sites had in common four physical similarities: 1) location of a low embankment enclosing three sides of an area, the fourth side of which was the side of the sand ridge on which the site was located; 2) depressions within the embankment; 3) group of mounds surrounding a local area without house depressions, and 4) mounds scattered within and outside the embankment.[10] A comment by Dr. E. Evers on pottery adds nothing to Mr. Henrich's valuable illustrations.

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7. Baker, K. K., 1930.
8. Swallow, 1868, 1875.
9. Potter, W. B., and E. Evers, 1880.
10. A forthcoming publication by the Academy of St. Louis, written as a result of intensive investigations by the Academy, and the W.P.A. verifies and expands this information on one of the above sites.

Mr. Cyrus Thomas, working for the Bureau of American Ethnology, enumerates and describes a few spectacular sites in the bottomland section of Southeast Missouri during an archaeological survey of the Mississippi valley. He drew heavily on the Beckwith collection for artifactual analysis. He also explored a few sites.[11]

Mr. Clarence B. Moore carried on a survey from a river boat of all sites that he could reach by water in the southern part of the United States. He docked his boat near New Madrid and reported on two or three sites, one of which has since gone down the river.[12]

Principal Sites in Bottomland Region of Southeastern Missouri

Among the hundreds of mound groups and villages in the bottomlands of Southeast Missouri, there are a number of sites that are particularly outstanding by reason of numbers of large mounds grouped close together on both sides of sand ridges.

The most imposing mound group in Stoddard County is 6.5 miles south of Dexter and about 1 mile east of the Dexter-Malden Highway (No. 25). It is along the east edge of a long north-south sand ridge which is here 1/2 mile wide. There are now about 18 mounds (formerly many more). There are two which are now 18-20 feet high and seem to have been flat topped. The others are apparently much lower than when they were recorded by C. Thomas. Potsherds, worked stone fragments and burned clay litter the surface between and on the mounds. Dark areas in the fields may indicate house locations. Thomas tested a number of the mounds. In one of them he found primary mound with a hardened surface. In another he found remnants of a house inside the mound. A few other mounds revealed only scattered human bones and potsherds and had probably been disturbed before his time. Since Thomas' time many mound features such as ramps are now obliterated.

There are three outstanding sites in Mississippi County; a mound group a mile east of Charleston on the golf course, the Hoecake group 7 miles ESE of East Prairie and the Pinhook Ridge group 12 miles SE of East Prairie.

The Charleston group now consists of a mound sliced off for a golf tee, a large flat topped mound with trees on it and other smaller mounds located near a slough on Highway 60. Pottery, a chunk of copper, and obsidian are reported from mounds. Fragments of pottery and worked stone objects indicate an extensive village around the mounds.[13]

Perhaps the largest and most spectacular mound group in the bottomlands of Missouri are the mounds on Pinhook Ridge named for a sand ridge in the shape of a pinhook. Over twenty mounds mainly scattered on the edge of Pinhook ridge were reported by Mr. C. Thomas, plus six that were located inside of a low embankment or fortified settlement that lies in the center of the east edge of the sand ridge. This latter is known as Beckwith's Fort, as Mr. Thomas Beckwith obtained a large part of his pottery collection from here.[14]

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[11] Thomas, C., 1884.
[12] Moore, C. B., 1916.
[13] Houck, L., 1908, Chapter II.

A mile southwest of this fort was a small mound named Baker's mound by Thomas in which was reported a hard basin-shaped interior covered over with sandy loam. Two layers of skeletons with pottery were found in the sandy loam and a similar layer in the hard basin-shaped primary mound.[15]

About a half mile southwest of the fort was a medium sized conical in which were reported two layers of hard clay and sand separated by a sterile layer, apparently two superimposed house structures. Over this had been placed burials.[16]

The fort itself consisted of a low earthen enclosure the east boundary of which showed no signs of embankment and was the edge of the sand ridge. Depressions indicating house sites were scattered among mounds inside the enclosure. A large elongated depression occupied the northwest corner of the enclosure. House mounds, burial and flat topped ceremonial mounds are reported. Two miles from the fort are a group of very low mounds, not inside an enclosure, which were house mounds and burial mounds. No ceremonial mounds were found from here. This was formerly known as Beckwith's Ranch.[17]

The so-called Hoecake mound group is a very interesting site. This is located 7 miles ESE of the town of East Prairie and is 5 miles NW of the Pinhook Ridge fort. It consists of a cluster of high conicals on the south edge of a sand ridge. It appears to have once been surrounded by an embankment, at three of the four quarters of which are single or small low mound clusters. Burials and artifacts were found during the construction of a road through the central group. Differing from many of the large mound groups of Southeast Missouri, the large central mound group does not seem to have been arranged around an open or "ceremonial area."

The most outstanding mound group in New Madrid County is the Lilbourn group located some two miles due west of New Madrid, the county seat. The largest mound is now occupied by a modern cemetery.

It was on this mound that Swallow carried on much of his work in the middle of the last century.

To the Southwest of New Madrid County, five miles north of the Arkansas border, in Dunklin County, lies a large mound group, the Langdon site. It is on a sand ridge between the Little and St. Francis Rivers. This is a large mound group, the largest mound, a truncate, having been cut down for the construction of a farm house.

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[14] Thomas, C., pp. 186-188

[15] Ibid, p. 184.

[16] Ibid, p. 185.

[17] Thomas C.

The largest mound in Southeast Missouri is in Pemiscot County, 5 miles west of the Mississippi River. This is very large, being over 400 feet x 250 feet and 35 feet high. Like some other mounds in Southeast Missouri it was flat topped and the south end was lower than the north end. Other much smaller mounds are nearby.

The above are the most spectacular mound groups in Southeast Missouri. The mound groups in New Madrid County are now generally much lower, having been largely plowed down, but the village settlements are often very large, once harboring probably up to 1500 or 2000 inhabitants.

Surface Indications of Aboriginal Sites in New Madrid County

It is not safe to locate aboriginal settlements merely by the presence of mounds in New Madrid County. Unless there are arrowheads and potsherds lying on the surface of mounds it is a good bet that the mound is merely a small sand ridge. There also appear to be many villages where there are no mounds.

Four types of sites have been found during our survey of New Madrid County. These are: 1) small villages without mounds; 2) small villages with isolated mounds; 3) villages with clusters of mounds; and 4) large villages with mounds and embankments. A majority of the sites appear to have been types 1, 2 and 3. However, only a small percentage of these sites were visited and recorded. Unless the fields were under cultivation along the edges of the large sand ridges where the sites are located it was almost impossible to see any definite indication of aboriginal occupation. Occasionally such sites were indicated only by village refuse washed out from the banks of the sand ridges.

Each aboriginal site that was located was given a survey number indicated by NM and it was also given a number. Thus a group of mounds and a village near Sikeston was called NM I. Collections of artifacts and sherds that were picked up on the surface were marked NM I. The next site that was located, a group of mounds and a village just south of NM I was numbered NM II and so on.

Most of the New Madrid County sites described below are located on the long sand ridge (two to four miles wide extending north from the town of New Madrid). A few are located on other smaller sand ridges. All are listed on the enclosed map. (See Fig. I.)

NM I lies along the east edge of the long north-south sand ridge approximately 2.5 miles south of Sikeston. Mr. Potter described the settlement and made a relatively accurate drawing of it for the Academy in 1878.[18]

Most of the mounds that he illustrated are still present although considerably effaced by the plow. Neither the embankment nor house depressions are now visible. Artifacts and sherds were picked up inside the embankment area but not in the oval area where Potter did not record house depressions. This oval area was apparently a "ceremonial area." Mr. K. K. Baker excavated the most northerly mound in 1930 (outside the embankment). He records burials in a circular formation together with effigy and decorated pottery.[19]

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[18] Potter and Evers, 1878, Settlement "C".

NM II consisted of another village and mound group surrounded by an embankment.[20] Between NM I and NM II are numerous isolated mounds and small mound clusters with a minimum of sherds and artifacts around them indicating small village sites. Plate I-1 is a photograph of one of these mounds.

NM III lies almost 1 mile north of Matthews on the west side of the long sand ridge. Potter records this settlement[21] and the Academy has just finished intensive investigations on it.[22]

Figure II is a drawing of the site in 1878. The numerous circles are depressions denoting the location of houses. A space without house depressions surrounded by mounds is a "ceremonial" area. Notice that surface indications of house depressions south of the old fence had been destroyed by the plow even in 1878. Like NM I and NM II this site consisted of an embankment enclosing a village, mounds and a ceremonial area. About a mile south of NM III on this same side of the ridge is a large mound and a group of small mounds plus a small aboriginal village (NM IV). Many of the latter may have been destroyed when the town of Matthews was built. There does not seem to have been an embankment here.

NM V is located at the south edge of the town of Noxall on the west side of the long north-south sand ridge. The site consists of a cluster of possibly five mounds. Other mounds appear to have been destroyed during the construction of the grain elevator. On the south edge of Kewanee there is a large mound now used as a cemetery and a group of smaller mounds (some of which may be merely small natural and sand ridges) comprising NM VI. There was no embankment, and village debris indicates the presence of small aboriginal camps. It was at NM VI that Swallow carried on some of his excavations.

Three miles west of New Madrid and a mile and a half SE of Lilbourn is NM VII with its large flat topped mound excavated by Swallow[23] on which is now a cemetery.

On a corner of the sand ridge, Potter reports that two sides of the settlement were surrounded by an embankment and there was a mound at the corner. There were the usual house depressions, cere-

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19. Personal communication.
20. Potter and Evers, 1878.
21. Potter and Evers, 1878, Settlement "A".
22. The results of this work are being prepared for publication in a forthcoming issue of the Transactions of the Academy of Science of St. Louis.
23. Swallow, G. C., 1875.

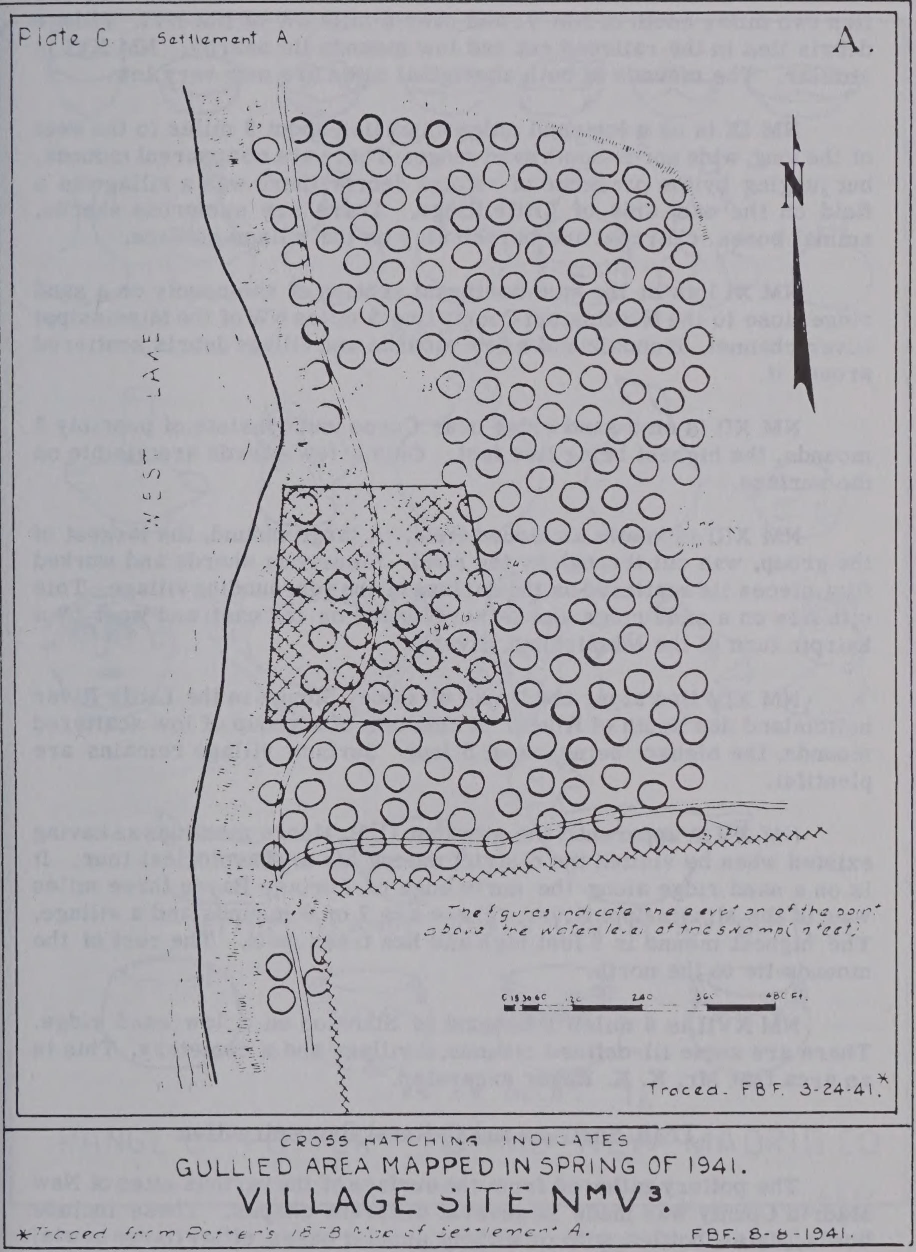
Plate C. Settlement A.
A.
N
WEST LAKE
23
22
194
The figures indicate the elevation of the point above the water level of the swamp (in feet).
0 15 30 60 120 240 360 480 Ft.
Traced. FBF. 3-24-41.*
CROSS HATCHING INDICATES
GULLIED AREA MAPPED IN SPRING OF 1941.
VILLAGE SITE NMV3.
*Traced from Potter's 1878 Map of Settlement A.
FBF. 8-8-1941.

FIG. 2

monial area and mounds.[24] One long mound higher at one end than at the other was located just outside and north of the embankment. NM VIII lies two miles south of NM VI and over a mile SW of NM XVI. Village debris lies in the railroad cut and low mounds lie nearby. NM XVI is similar. The mounds of both aboriginal sites are now very low.

NM IX is on a low sand ridge which lies about 3 miles to the west of the long, wide north-south sand ridge. There are no apparent mounds, but judging by the presence of village debris there was a village in a field on the east side of Little Ridge. There are numerous sherds, animal bones, charcoal and burned clay on the village surface.

NM XI lies in the east northeast section of the county on a sand ridge close to the Mississippi County line 5 miles NW of the Mississippi River channel. It consists of a few mounds and village debris scattered around it.

NM XII is on a sand ridge near Corno and consists of possibly 5 mounds, the highest being five feet. Only a few sherds are visible on the surface.

NM XIII is known as mound field. A large mound, the largest of the group, was cut through by the road. Numerous sherds and worked flint pieces lie scattered on the surface of the surrounding village. This site lies on a sand ridge and is surrounded on the east and west by a hairpin turn of the Mississippi River.

NM XIV lies along the banks of Caney Slough in the Little River bottomland due south of Risco. It consists of a group of low scattered mounds, the highest being about 5 feet. Surface village remains are plentiful.

NM XV is apparently the site that C. B. Moore mentions as having existed when he visited the district during his archaeological tour. It is on a sand ridge along the north edge of Portage Bayou three miles west of the Mississippi River. There are 7 or 8 mounds and a village. The highest mound is 9 feet high and has trees on it. The rest of the mounds lie to the north.

NM XVII is 6 miles southeast of Sikeston on a low sand ridge. There are some ill-defined mounds, a village and a cemetery. This is an area that Mr. K. K. Baker excavated.[25]

Trait Analysis and Cultural Reconstruction

The pottery gathered from the surface of the various sites of New Madrid County was made in several different shapes. These include bowls, plates, bottles, with or without annular bases, effigy flange bowls, effigy pots and jars.[26] Fig. III is an adaptation of drawings made by

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[24] Potter and Evers, 1878. Settlement "B".

[25] Baker, K. K., 1930.

[26] This section on pottery was worked up from sherds typed by Dr. James B. Griffin of the Ceramic Laboratory at the University of Michigan for which we hereby give thanks.

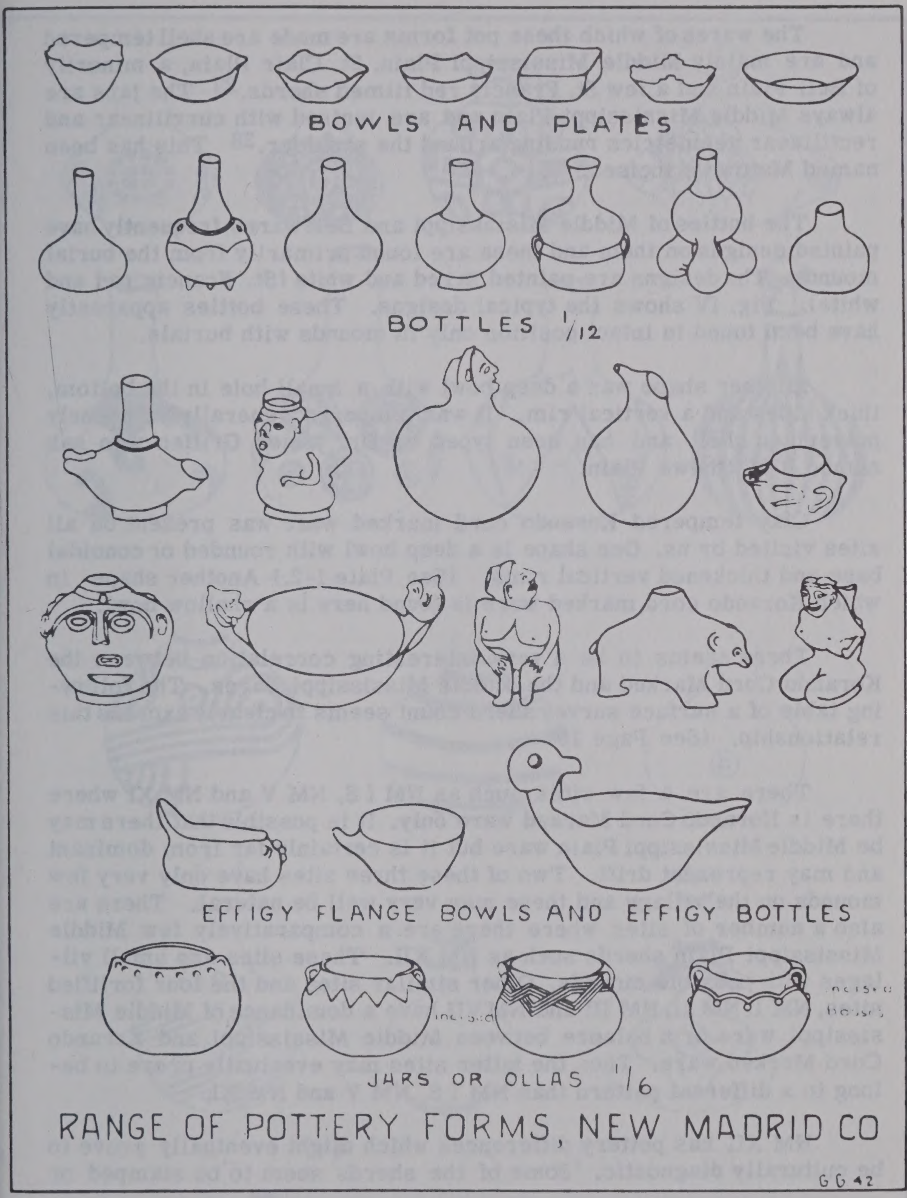
BOWLS AND PLATES
BOTTLES 1/12
EFFIGY FLANGE BOWLS AND EFFIGY BOTTLES
incised
incised
bosses
JARS OR OLLAS 1/6
RANGE OF POTTERY FORMS, NEW MADRID CO
GG 42

FIG. 3

Potter and Evers of the pottery excavated by the Academy of Science of St. Louis.

The wares of which these pot forms are made are shell tempered and are mainly Middle Mississippi Plain, St. Clair Plain, a minority of Bell Plain and a few St. Francis red filmed sherds.[27] The jars are always Middle Mississippi Plain and are incised with curvilinear and rectilinear geometrics running around the shoulder.[28] This has been named Matthews incised.

The bottles of Middle Mississippi and Bell wares frequently have painted designs on them and these are found primarily from the burial mounds. The designs are painted in red and white (St. Francis red and white). Fig. IV shows the typical designs. These bottles apparently have been found in intact position only in mounds with burials.

Another shape was a deep bowl with a small hole in the bottom, thick sides and a vertical rim. It was tempered generally with finely pulverized shell and has been typed by Dr. James Griffen who has named it Matthews Plain.

Clay tempered Korando cord marked ware was present on all sites visited by us. One shape is a deep bowl with rounded or conoidal base and thickened vertical rims. (See Plate I-2.) Another shape in which Korando cord marked ware is found here is a shallow bowl.

There seems to be a very interesting correlation between the Korando Cord Marked and the Middle Mississippi wares. The following table of a surface survey sherd count seems to clearly express this relationship. (See Page 19)

There are a few sites such as NM I S, NM V and NM XI where there is Korando Cord Marked ware only. It is possible that there may be Middle Mississippi Plain ware but it is certainly far from dominant and may represent drift. Two of these three sites have only very few mounds on the village and these may very well be natural. There are also a number of sites where there are a comparatively few Middle Mississippi Plain sherds such as NM XII. These sites are small villages with possible mounds. Other similar sites and the four fortified sites, NM I, NM II, NM III and NM VII have a dominance of Middle Mississippi ware or a balance between Middle Mississippi and Korando Cord Marked ware. Thus the latter sites may eventually prove to belong to a different pattern than NM I S, NM V and NM XI.

NM XII has pottery differences which might eventually prove to be culturally diagnostic. Some of the sherds seem to be stamped or

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[27] Descriptions of the pottery will be published in the forthcoming Transaction at the Academy.

[28] This is significant for it is similar to jar designs on Upper Mississippi phase pots from Iowa and Central Missouri. This tends to indicate the lateness of the fortified settlements in New Madrid County.

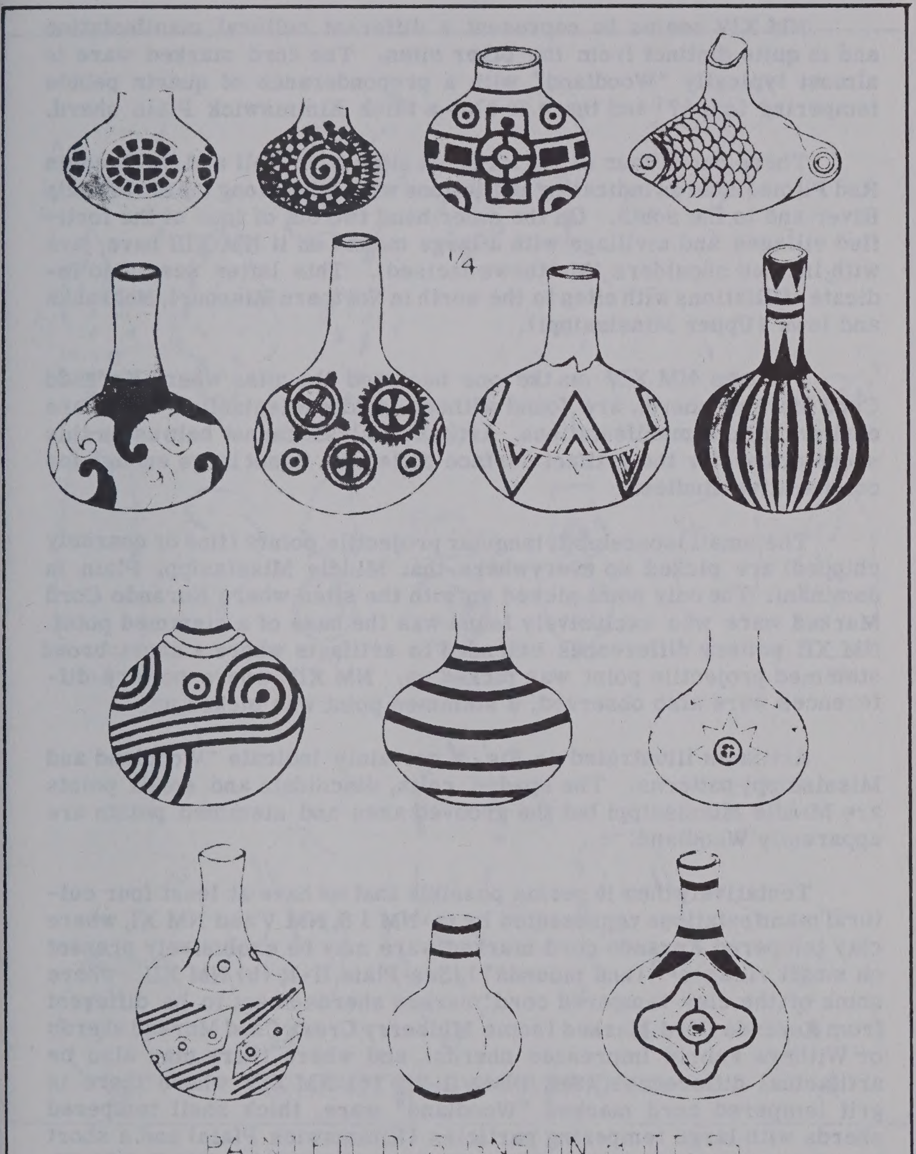
1/4
PAINTED DESIGNS ON BOTTLES
■ Red
▭ Brown
▭ White

FIG. 4

perhaps fabric impressed. The clay tempered sherds seem to be unusually thick.

NM XIV seems to represent a different cultural manifestation and is quite distinct from the other sites. The cord marked ware is almost typically "Woodland" with a preponderance of quartz pebble tempering (sand?) and there is also a thick Kimmswick Plain sherd.

Three out of four of the fortified sites have Bell and St. Francis Red Filmed sherds indicating affiliations with sites along the St. Francis River and to the south. On the other hand two out of four of the fortified villages and a village with a large mound on it NM XIII have jars with incised shoulders (Matthews Incised). This latter seems to indicate affiliations with sites to the north in Northern Missouri, Nebraska and Iowa (Upper Mississippi).

Perhaps NM XIV on the one hand and the sites where Korando Cord Marked sherds are found without Middle Mississippi Plain are earlier cultural manifestations. Artifact analysis cannot help us on this score either, for the artifact surface collection is not large enough for comparative studies.

The small isosceles triangular projectile points (fine or coarsely chipped) are picked up everywhere that Middle Mississippi Plain is dominant. The only point picked up with the sites where Korando Cord Marked ware was exclusively found was the base of a stemmed point. NM XII pottery differences extended to artifacts where a short broad stemmed projectile point was picked up. NM XIV where pottery differences were also observed, a stemmed point was picked up.

Artifacts illustrated in Fig. V certainly indicate "Woodland and Mississippi patterns. The spades, celts, discoidals and small points are Middle Mississippi but the grooved axes and stemmed points are apparently Woodland.

Tentatively then it seems possible that we have at least four cultural manifestations represented by (a) NM I S, NM V and NM XI, where clay tempered Korando cord marked ware may be exclusively present on small villages[32] (and mounds?) (See Plate II-1; (b) NM XII where some of the clay tempered cord marked sherds seem to be different from Korando Cord Marked (some Mulberry Creek Cord Marked sherds or Withers Fabrid Impressed sherds), and where there may also be artifactual differences (See Plate II-2); (c) NM XIV where there is grit tempered cord marked "Woodland" ware, thick shell tempered sherds with large tempering particles (Kimmswick Plain) and a short broad stemmed point (See Plate III-1); and (d) NM I, NM II, NM III, NM IV, NM VI, NM VII, NM VIII, NM IX, NM X, NM XV and NM XVI (See Plate III-2) where Middle Mississippi Plain was the dominant ware, Korando Cord Marked recessive and the small isosceles triangular projectile point was the dominant point.

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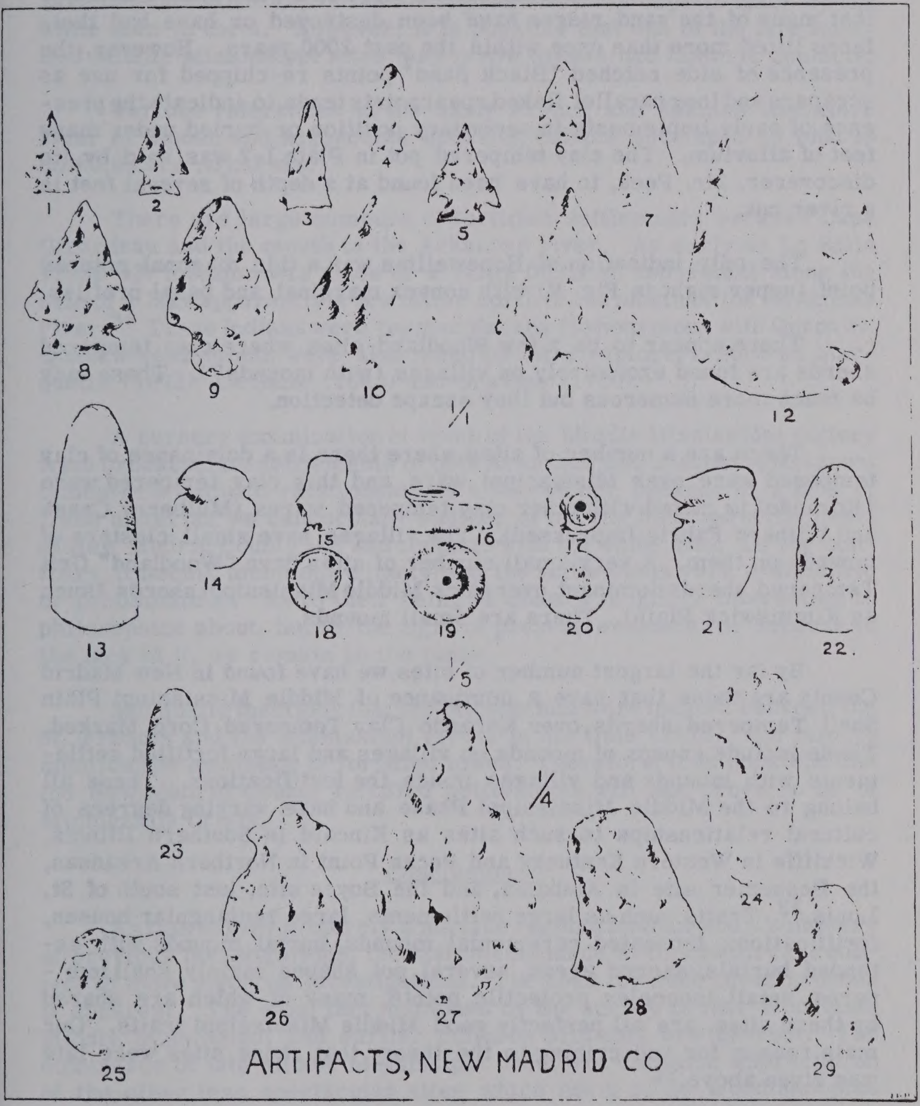
32. However, certain traits often belonging to the Middle Mississippi sites such as hoes, celts, more than one pot shape are found on this cultural manifestation.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ARTIFACTS, NEW MADRID CO

FIG. 5

The possibility of discovering early man in New Madrid County or in the bottomlands of Southeast Missouri is remote. There are no rock shelters and several feet of the alluvium caps the sand ridges, hiding possible early cultures. Then there is a very good likelihood that many of the sand ridges have been destroyed or have had their faces lifted more than once within the past 2000 years. However, the presence of side notched "Black Sand" points re-chipped for use as scrapers and long parallel flaked spearpoints tends to indicate the presence of early implements in secondary position or buried under many feet of alluvium. The clay tempered pot in Plate I-2 was said by its discoverer, Mr. Peck, to have been found at a depth of several feet in a river cut.

The only indication of Hopewellian was a thin diagonal notched point (upper right in Fig. V) with convex marginal and basal profiles.

There appear to be a few Woodland sites where clay tempered sherds are found exclusively on villages (with mounds?). These may be much more numerous but they escape detection.

There are a number of sites where there is a dominance of clay tempered ware over Mississippi ware, and this clay tempered ware (Korando) is mixed with other clay tempered wares (Mulberry Creek and Withers Fabric Impressed). The villages have small clusters of mounds on them. A very small number of sites have "Woodland" Grit Tempered sherds dominant over thick Middle Mississippi sherds (such as Kimmswick Plain). There are small mounds.

By far the largest number of sites we have found in New Madrid County are those that have a dominance of Middle Mississippi Plain Shell Tempered sherds over Korando Clay Tempered Cord Marked. These include groups of mounds on villages and large fortified settlements with mounds and villages inside the fortifications. These all belong to the Middle Mississippi Phase and have varying degrees of cultural relationships to such sites as Kincaid in Southern Illinois, Wickliffe in Western Kentucky and Pecan Point in Northern Arkansas, the Bessemer site in Alabama, and the Boyce site, just south of St. Louis.[33] Traits such as large settlements, large rectangular houses, fortifications, truncated ceremonial mounds, burial mounds with extended burials, sacred areas, several pot shapes mainly shell tempered, small isosceles projectile points, many of which are shared by these sites, are all perfectly good Middle Mississippi traits. Our main reason for subscribing to the theory that these sites were late was given above.[34]

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[33] The Boyce site has a dominance of Korando Cord Marked Ware from the village and a dominance of Middle Mississippi Plain from the burials. All the New Madrid County sites (with the possible exception of NM XIV) had either solely clay tempered or mixtures of clay and shell tempered sherds. Not one site had exclusively shell tempered sherds on the surface.

[34] See footnote 28.

Identification of Historic Settlements

None of the reports of the numerous investigations of amateurs have indicated that any of the aboriginal sites had objects made by the white man in them. However, it is possible that one of the late fortified Middle Mississippi sites may prove to have had historic contacts.

Various references in the early French and Spanish literature refer to Siouan and Algonquian speaking Indians encamped in what is now Eastern Arkansas.

There are large numbers of fortified settlements between Cape Girardeau and the mouth of the Arkansas river. As early as La Salle (1539-43) mention was made of a large fortified settlement along the side of a lake apparently a few miles north of the mouth of the Arkansas river.[35] These Indians were termed Pacaha (synonymous with Quapaw). Quapaw settlements were also noted by later explorers such as Marquette (1673), La Salle (1682) and Gravier (1700).

A cursory examination of much of the Middle Mississippi pottery from probable late settlements in both Arkansas and Southeast Missouri indicates a cultural relationship of a degree but, because of a lack of trade material, we cannot state whether or not the fortified settlements of New Madrid County had had contacts with the white man. On the contrary, it seems much more likely that the settlements were prehistoric or protohistoric. As to their being of Quapaw origin is interesting to philosophize about, but in the light of present evidence, or because of the lack of it, we remain on the fence.

Marquette mentions that the Michigamia were located between the St. Francis and the Mississippi rivers in his time (1673). He fails to mention the existence of fortified towns. Therefore, it is possible that the New Madrid County fortified settlements will not prove to be of Michigamia origin.

Conclusions

As this survey is merely a surface reconnaissance and a summary of previous investigations, the statements made in this report are subject to more vigorous investigations. The need for such investigations is apparent. The chief fact disclosed by the survey is that Woodland, Middle Mississippi and earlier cultures probably are present. The dominance of late Middle Mississippi ought not diminish appreciation of the other less spectacular sites which seem to be Woodland plus Mississippi or Woodland.

---

35. Gentleman of Elvas, (1557) in French Historical Collection, La., II, pp. 169-72, 1853.

Site	Physical Appearance[29]	No. of sherds	Middle Miss.	Matthews Plain	Matthews Incised	St. F. Red	Bell	Korando cord Marked
NM I	Mound Group and village within fortification	92	40	5	1	11	8	27
NM I S	Isolated Mound and village site between NM I and NM III	7	-	-	-	-	-	7
NM II	Mound group and village within fortifications	22	11	-	-	-	-	10
NM III	Mound group and village within fortifications	73	51	2	1	1	4	14
NM IV	Small mound group and village	7	5	1	-	-	-	1
NM V	Cluster of possible small mounds and village	14	-	-	-	-	-	14
NM VI	One large mound and several Small Mounds and villages	19	5	-	-	-	-	14
NM VII	Mound group and village within fortifications	51	44	3	-	-	-	2
NM VIII	Possible small mounds and village	18	6	-	-	2	-	10
NM IX	Village[30]	16	6	-	-	3	-	7
NM X	Possible low mound and village	23	16	-	-	-	-	7
NM XI	Possible Small mounds and village	35	-	-	-	-	1	34
NM XII	One medium sized mound and possible small mounds and village[30]	32	6	-	-	-	-	26
NM XIII	One large mound and possible mounds and villages	22	10	-	3	-	-	9
NM XIV	Mound group and village[31]	13	2	-	-	1	-	-
NM XV	Mound group and village	30	15	2	-	-	-	13
NM XVI	Possible Small mounds and villages	46	23	11	-	-	-	12
NM XVII	Possible small mounds and villages	No samples						

---

29. Wherever the word "possible" is noted before a mound group it is not certain whether the mounds are artificial or natural. The villages, however, are very apparent.
30. A few of the cord marked sherds appear to be Mulberry Creek cord marked.
31. The cord marked ware from NM XIV is grit (sand) tempered and there is also a Kimmswick Plain sherd (thick "Salt pan" fragment).

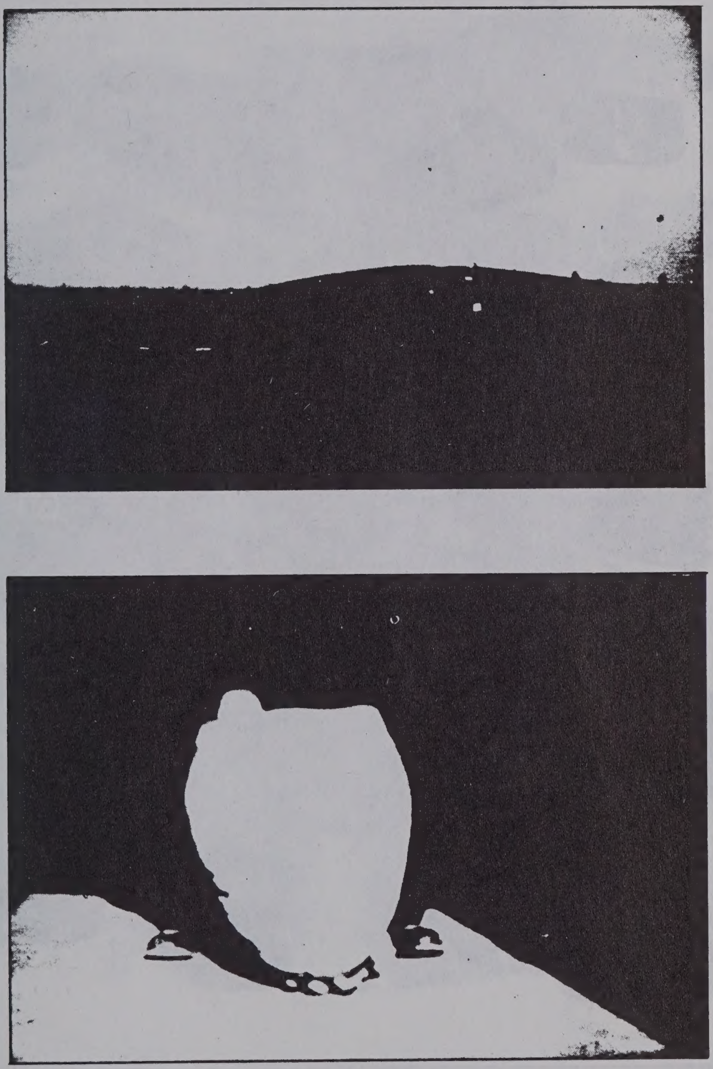

PLATE I

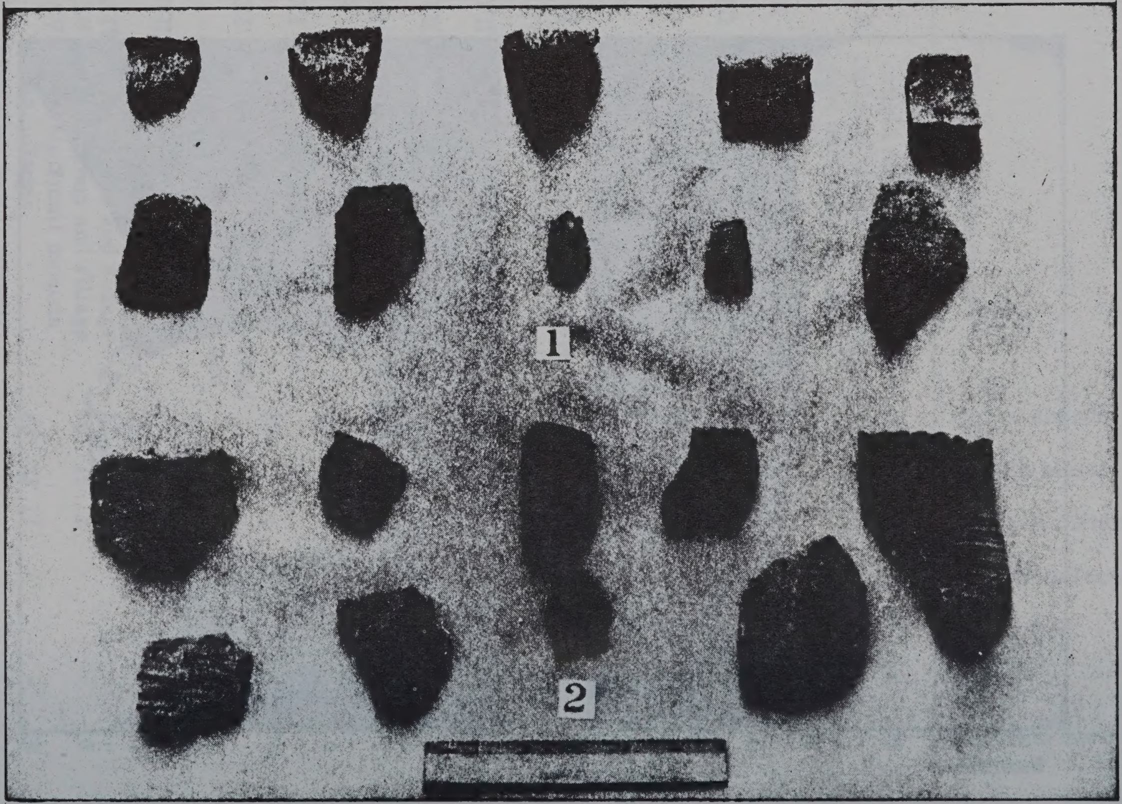

PLATE II

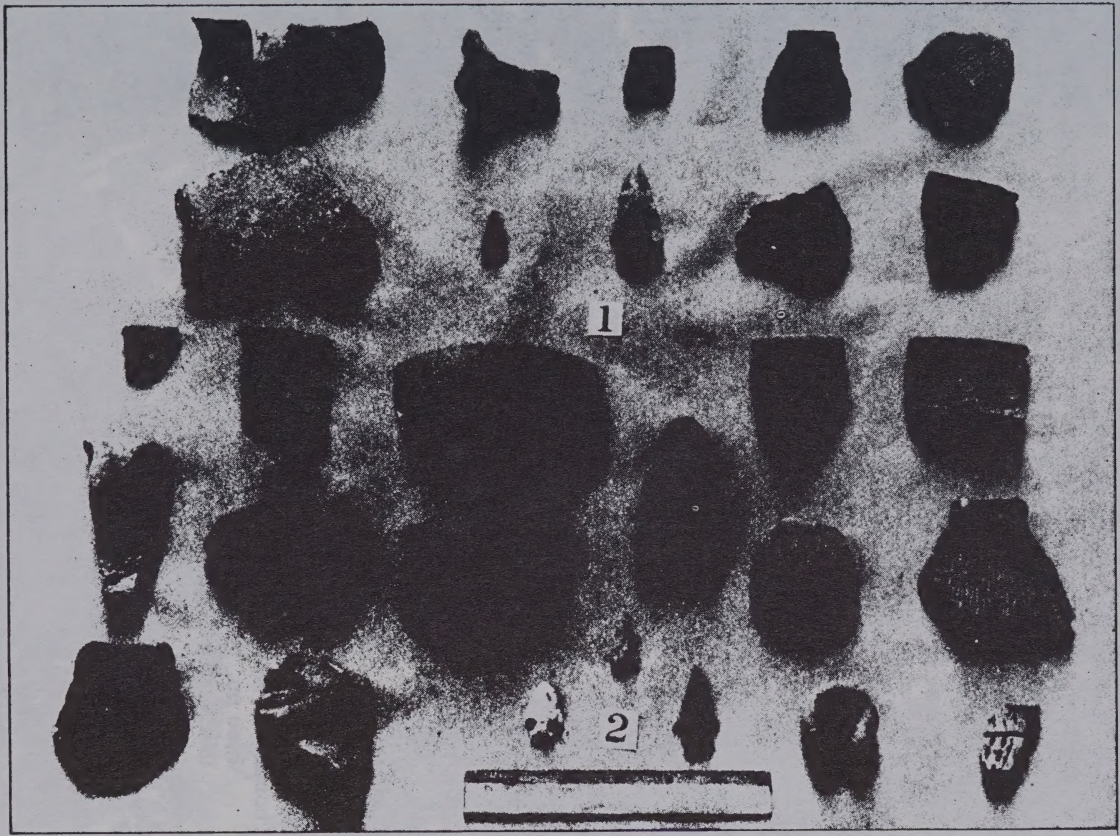

PLATE III

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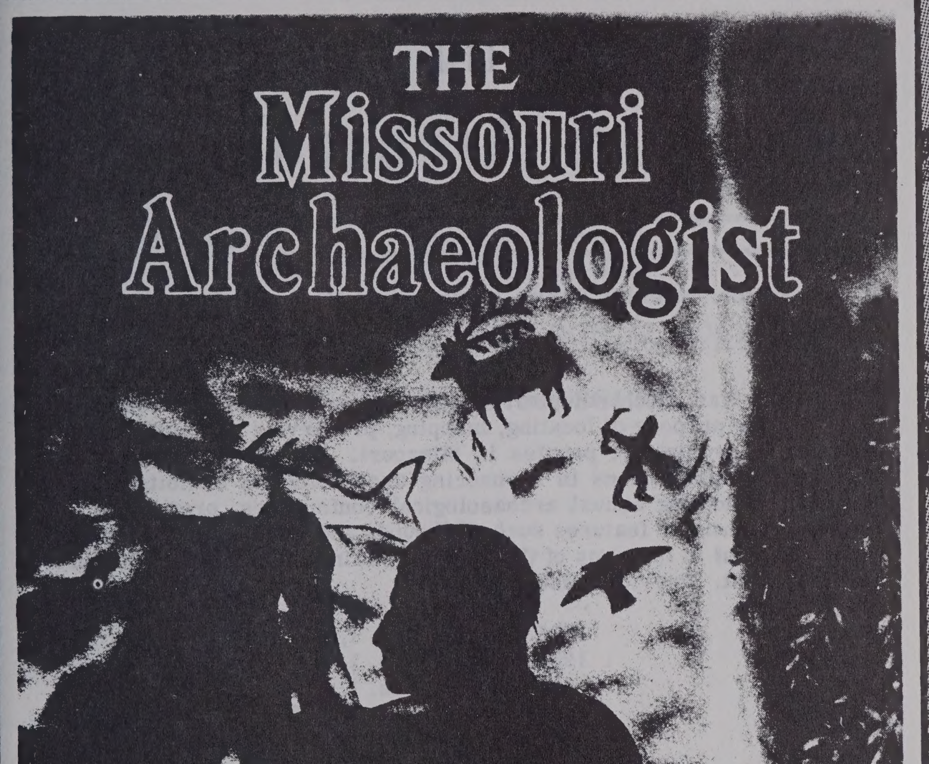
THE Missouri Archaeologist



THE
Missouri Archaeologist

No. 19 Columbia, Missouri December, 1944

Editor: Brewton Berry, University of Missouri, Columbia

The State Archaeological Society was established in December, 1934, for the purpose of locating, mapping, preserving and studying the remains of prehistoric peoples in Missouri. The Society cooperates with other organizations in sponsoring archaeological exhibits at the State Fair, holding annual archaeological conferences, preserving of unusual prehistoric features such as mounds and earthworks, arousing public interest in the aims of the Society, and in publishing The Missouri Archaeologist. Previous issues include:

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1936 - Vol. 2, Nos. 1, 2
1937 - Vol. 3, Nos. 1, 2
1938 - Vol. 4, Nos. 1, 2, 3
1939 - Vol. 5, Nos. 1, 2
1940 - Vol. 6, Nos. 1, 2
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1942 - Vol. 8, Nos. 1, 2

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INVESTIGATIONS OF THE
MARION-RALLS ARCHAEOLOGICAL SOCIETY
IN NORTHEAST MISSOURI

BY

J. ALLEN EICHENBERGER

The MISSOURI ARCHAEOLOGIST

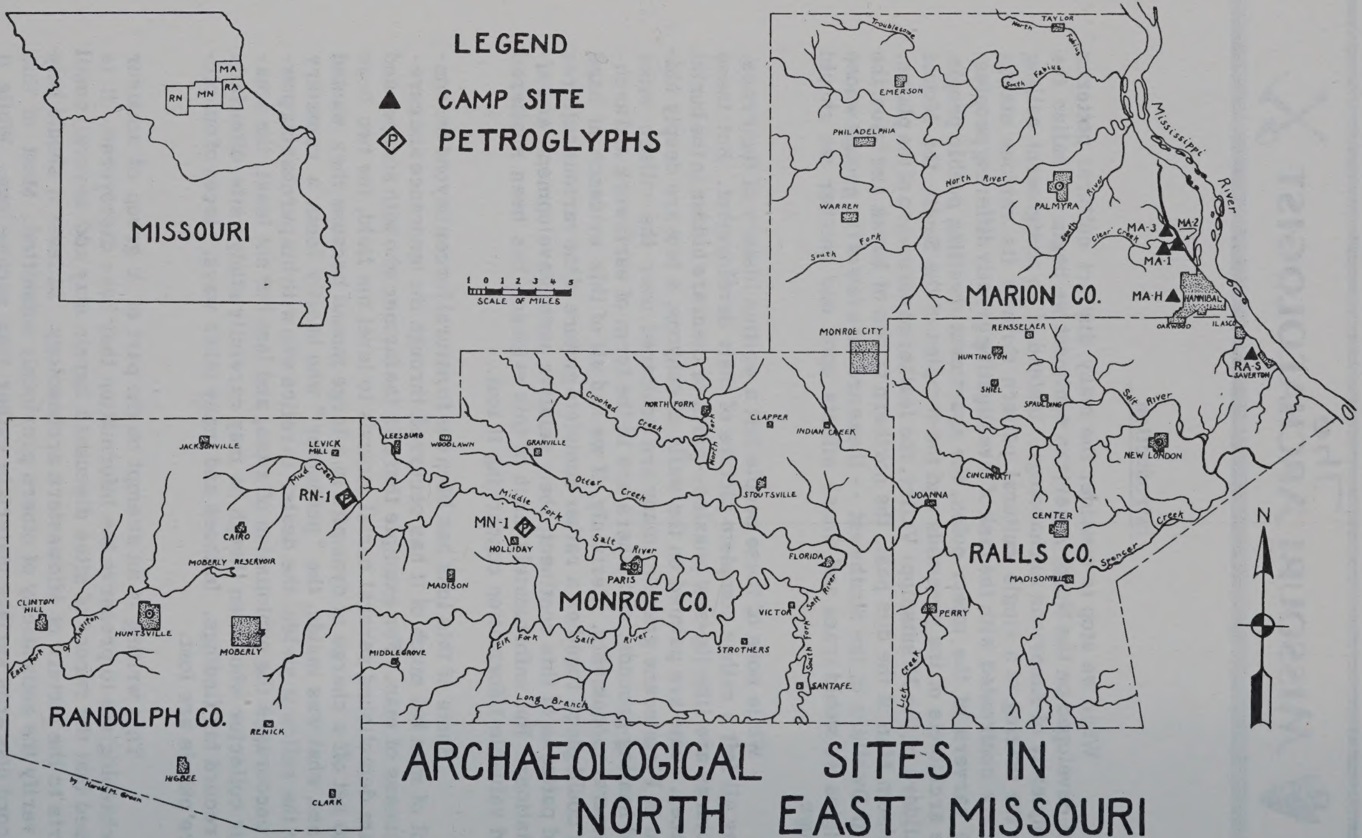
Introduction

When we stop to consider the many distinct cultural patterns that developed on the North American continent we begin to realize the complexity of American archaeology. Instead of an assignment calling for the tracing of a single cultural pattern through its various stages we are confronted with the task of investigating greatly differing peoples: the carvers of the totem poles, the apartment-dwelling pueblo people, the architects of the pyramids and the temples of the South, the Mound Builders of the Mississippi Valley, the feathered horsemen of the plains, Folsom Man of the dim past, the northern tribes of kayak and igloo, the Cliff Dwellers of the Southwest -- these are but a few of the groups whose origins we would trace and whose effects upon one another we should gauge.

While none of these people left a written history of their race, they all left a rather complete picture of their development. But these pictures are like jig-saw puzzles--parts of them are hidden in the burial places, some are painted on the walls of canyons, a few are deeply hidden in Pleistocene gravels, many are scattered over the village sites and hunting grounds, and others are in the form of earthwork and architectural monuments. Certainly, if we had all of this evidence at hand we could piece together a rather complete picture of the various cultures and patterns of this continent, their relative ages, development, and affiliations. But unfortunately much of this evidence has been scattered and valuable information concerning it lost.

Some of this loss has been due to natural forces beyond the control of man but much of it has occurred through the ignorance and carelessness of man. For example there is the farmer who with scraper and team demolished several burial mounds to level his field, the two boys who set off a charge of dynamite in a large mound because they wanted to see what was inside, the "pot hunter" who hastily loots a cemetery for the relics it yields, the dealer in relics who with his purchasing power encourages the exploitation of sites, and last but not least, the amateur collector who, even though he may carefully study a site, often fails to record his findings. In these and many other ways, pieces of our picture puzzle are lost.

This writing is an attempt on the part of a group of amateur archaeologists to preserve the information they have discovered. It is hoped that the record of sites discussed herein may add several small parts to the picture of Midwestern archaeology. At least it should help to verify the authenticity of others previously submitted. Most of this record concerns surface materials rather than excavations. While it is true that a careful excavation yields stratigraphical evidence that we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SHIEL
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JOANNA
CENTER
Spencer Creek
MADISONVILLE
PERRY
Lick Creek
NORTH FORK
Crooked Creek
North Fork
CLAPPER
INDIAN CREEK
LEESBURG
WOODLAWN
GRANVILLE
Otter Creek
STOUTSVILLE
Middle Fork
Salt River
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PARIS
FLORIDA
MADISON
VICTOR
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STROTHERS
SANTAFE
MIDDLEGROVE
Elk Fork Salt River
Long Branch
JACKSONVILLE
LEVICK MILL
Mud Creek
RN-1
CAIRO
MOBERLY RESERVOIR
CLINTON HILL
HUNTSVILLE
MOBERLY
East Fork of Chariton
RENICK
HIGBEE
CLARK
by Harold M. Green
ARCHAEOLOGICAL SITES IN NORTH EAST MISSOURI

Figure 1

cannot hope to glean from the study of surface collections, it does not therefore follow that the study of surface materials has no important place in archaeology. Too often, the common-place surface finds have been ignored or relegated to the background in favor of the more spectacular excavations, resulting in an over emphasis on the burial or ceremonial complex. Were it possible to excavate all sites immediately, then perhaps there would be no place for surface analysis. However, as it is, only a minute proportion of sites can be excavated; and while this is in progress, thousands of others are being stripped of their artifacts by erosion and by the habits of man. For this reason it is considered important that more emphasis be placed on the careful cataloging and analysis of surface materials.

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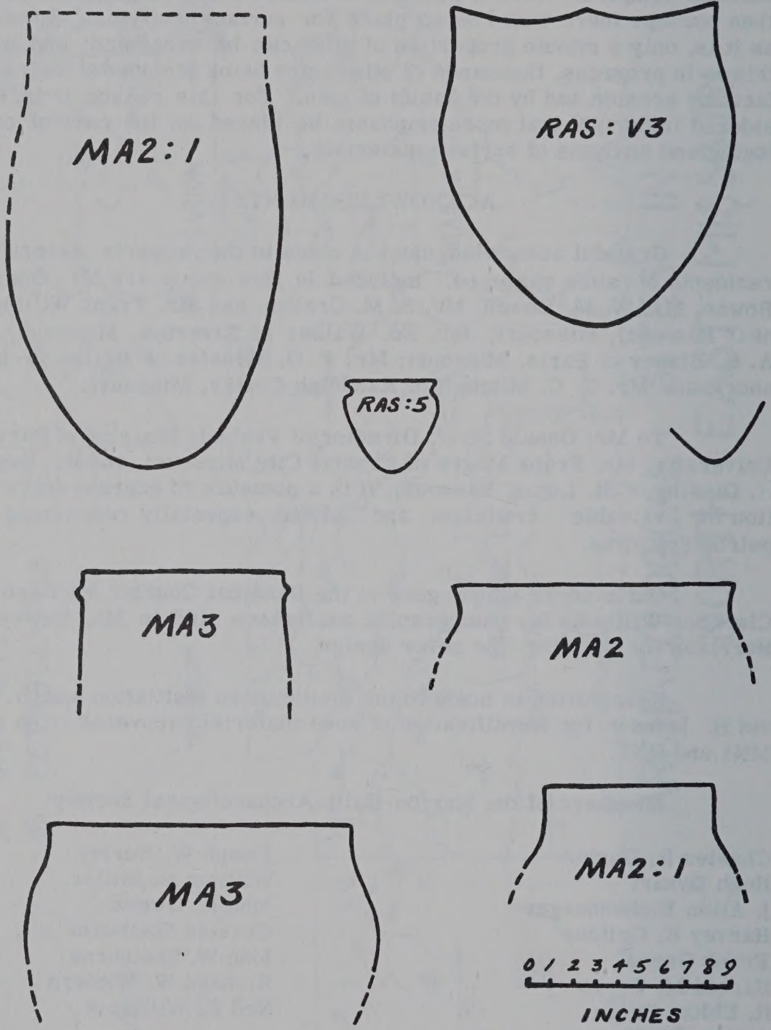
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INCHES

Figure 2

NORTHEAST MISSOURI POTTERY SHAPES

INVESTIGATIONS OF THE MARION-RALLS ARCHAEOLOGICAL SOCIETY IN NORTHEAST MISSOURI

by

J. Allen Eichenberger

Northeast Missouri appears to be a promising region for investigating the development of the Woodland Pattern because all sites seem to be free from direct Mississippian influence. The many village sites bordering the Mississippi River and its tributaries yield a volume of material for a study of the various Woodland aspects. One or more mounds crown almost every hilltop overlooking the Mississippi and many are scattered along the sizable streams that drain Marion, Ralls and adjoining counties. In Ralls County alone, more that 400 mounds and village sites have been counted. Village sites are common along the Mississippi River, Salt River, Spencer Creek, and many of the smaller streams. Some of these sites indicate considerable occupation over a long period of time but the majority seem to have had only short or intermittent use. In many instances the latter are almost continuous along the ridges and in the second bottoms adjacent to the larger streams which no doubt served as natural travel routes.

For this writing, several sites have been selected that are typical of the various manifestations of the Woodland in this vicinity and which, for the most part, appear to be pure sites. In order to simplify the description of materials recovered, it has been deemed advisable first to set up a classification of the principal cultural mediums, pottery and projectile points.

POTTERY

Virtually all pottery is grit tempered, the grit being sand and/or creek gravel. Sherds are usually small; however, a sufficient number of larger sherds have been found to give fair indication of prevailing shapes. Almost all pottery is of the type generally classified as Woodland. The only known exception is evidenced by a few shell tempered sherds from the Saverton flat in Ralls County.

Type I - Usually large vessels (average diameter- 30cm.) with conoidal base and more or less well defined neck and shoulder. Sidewalls are thin (average 4mm. at rim to 12mm. at base) but vary greatly on the same vessel. All are grit tempered and the great majority are cordmarked. Cord impressions vary in sharpness and are often in rather straight lines extending vertically from the rim to near the base, where they play out. Decorative traits are almost entirely confined to diagonal lip-notching, usually the so-called cord-wrapped cylinder variety. A few specimens are punctate. Perhaps Type I pottery eventually can be broken down into several sub-types as more information becomes available.

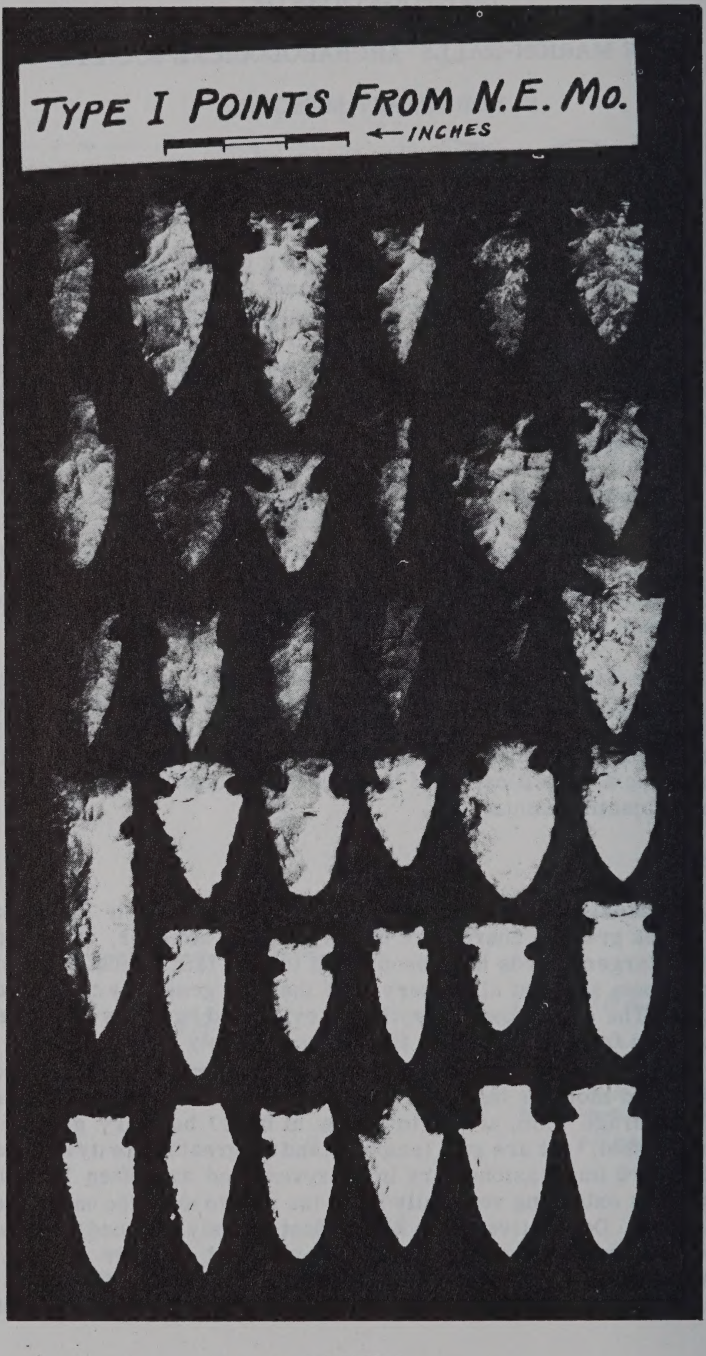

TYPE I POINTS FROM N.E. Mo.
← INCHES

PLATE I

Type II - This is the heavy ware classified by Cole & Deuel as Type 2 pottery.[1] It appears to be intrusive to this region, being known only on the one site, MA3. This ware, together with the accompanying cultural material, closely matches that from the Hopewellian sites in Clay and Platte Counties, Missouri,[2] and is quite similar to pottery from the Hopewellian sites of Illinois. Most vessels were quite large, amphora in shape, probably with conoidal base, and with lip surface flat and often inclined toward the interior of the vessel. Decorations occur near the rim and features are many including embossing, stamping, trailing, cross-hatching, and cord-wrapped cylinder rim-notching. Most of the body sherds are either cord-roughened or carelessly smoothed and a few have basket imprints.

PROJECTILE POINTS

The following classification of projectile points is based primarily on flaking technique, but since certain patterns occur more frequently in one type than another, it seems important to include a description of the predominant patterns of each type. Four types have been set up, two for the large points (Type I and Type II) and two for the small points (Type III and Type IV). Virtually all sites yield both large and small points. Existing evidence indicates that the small points of Type III and the larger Type I points are concomitant. Likewise type IV seems to be the small point of the complex of which the larger Type II point is diagnostic.

Type I - This is the so-called Woodland type which includes a multiplicity of patterns. Predominating are the more simple notched and stemmed forms of poor to medium workmanship; however, a small percentage are rather well made. Points were fashioned from the core, and cross-sections of the blade are usually double-convex. Flake scars are rather coarse over the surface, but secondary flaking around the edge is somewhat less coarse. A length of 125mm. is seldom exceeded.

Type II - A highly specialized type of exceptionally fine workmanship with flaking technique that is as characteristic as are the several patterns which comprise the series. This combination of pattern and technique makes identification quite simple in most instances. The flaking technique may be best described as one which leaves the surface quite smooth and free from irregularities or deep scars. The flakes often carry well toward the center of the artifact in such a manner as to leave the blade much thinner than the majority of chipped specimens. The ability of the craftsman is further indicated by the fact that points are often much larger than those of Type I. In common with points of Type I, the finished artifact is from the core, and a cross-section of the blade is double-convex. The patterns (Figure 3) include the Narrow Notch (A), the Shank Type Barbed (B), the Fishtail (C), the Double Pointed Scraper-Knife (D), and the Fishtail-like Knife (E). In addition to the flaking technique, these patterns have other specialized features in common.

---

1. Rediscovering Illinois (University of Chicago Press, 1937)
2. Shippee, J. M. " Hopewellian and Middle Mississippi Remains from the Kansas City Area," Missouri Archaeologist, 7:2, October, 1941.

TYPE II POINTS

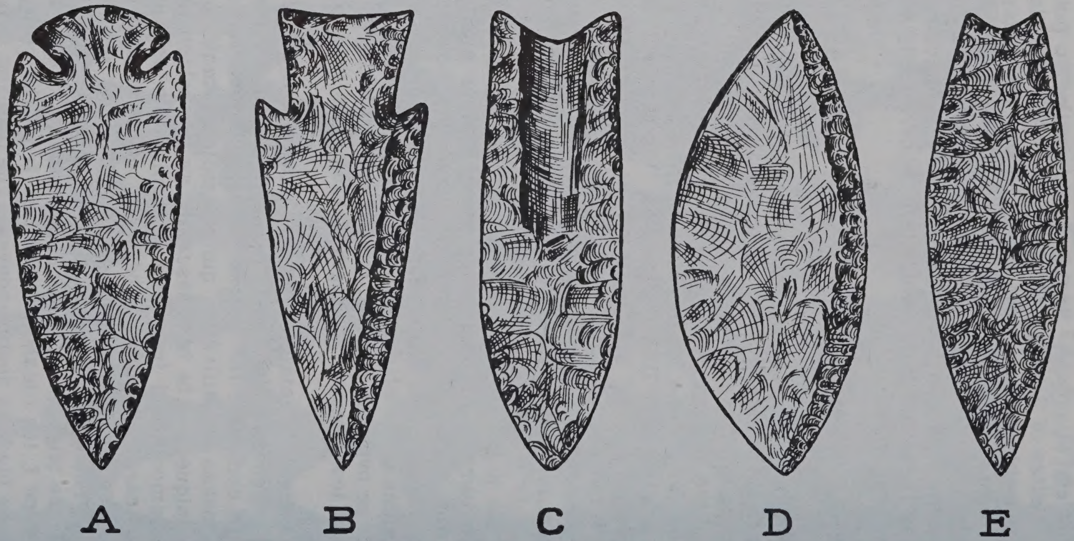


Figure 3

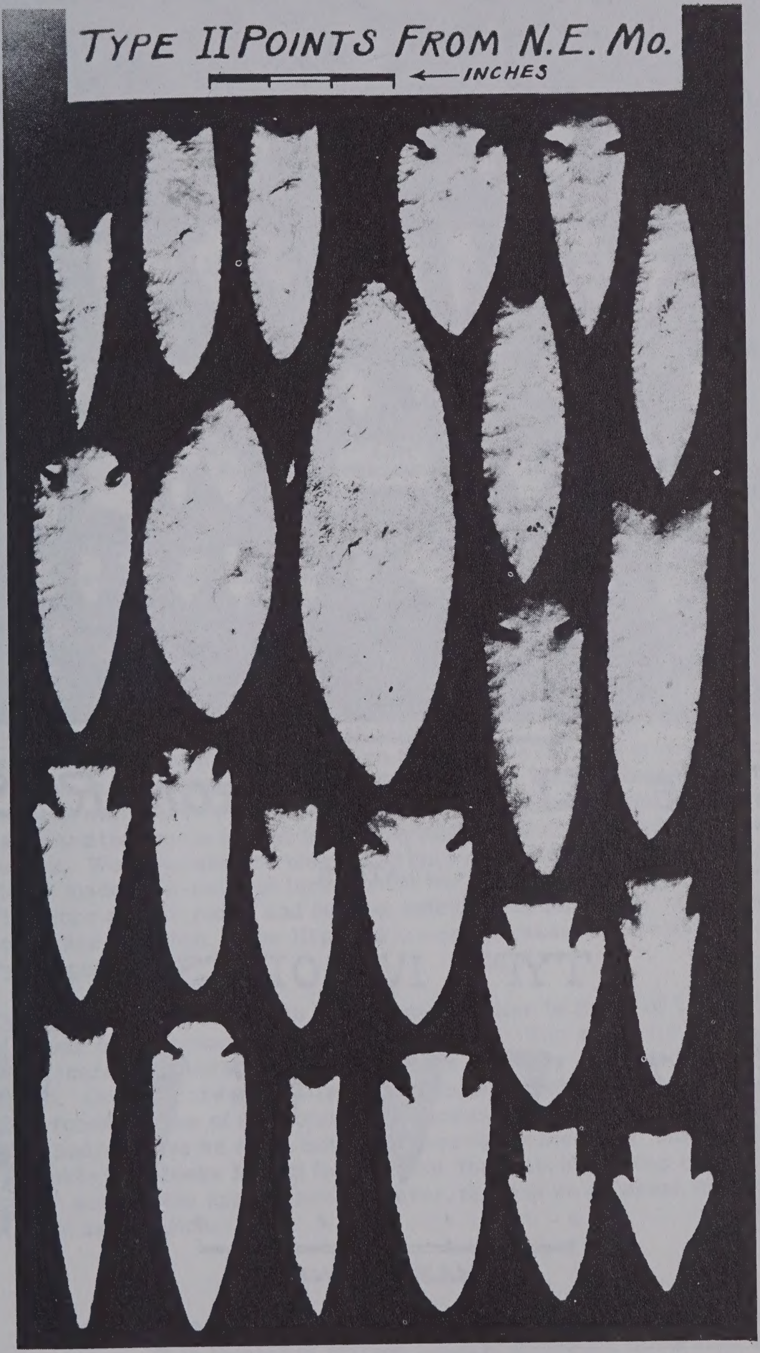
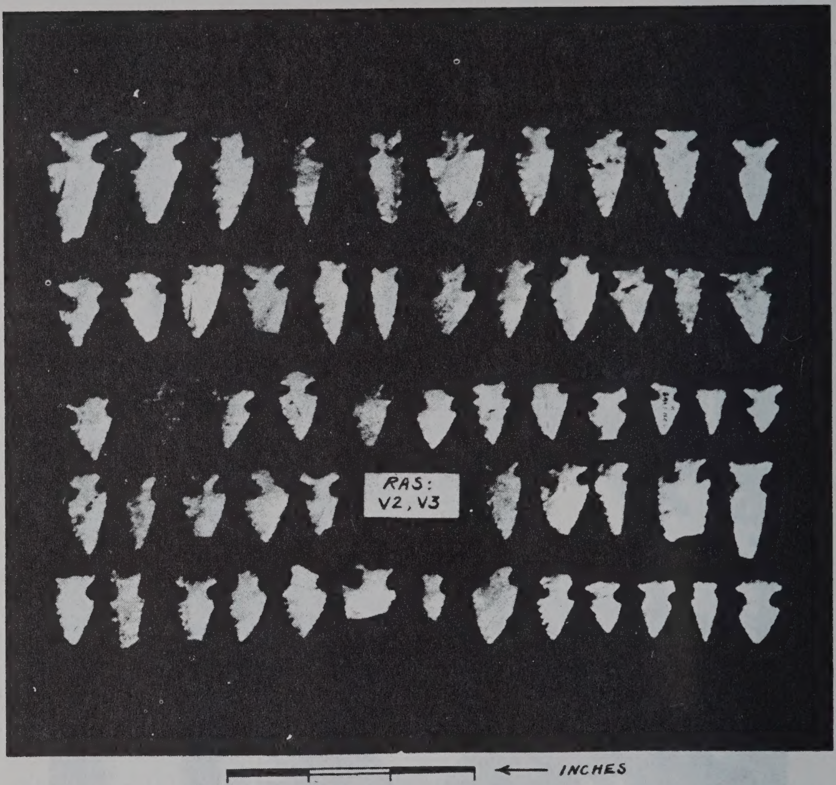

TYPE II POINTS FROM N.E. Mo.
← INCHES

Plate II


RAS:
V2, V3
INCHES

TYPE III POINTS FROM RAS

PLATE III

TYPE IV POINTS

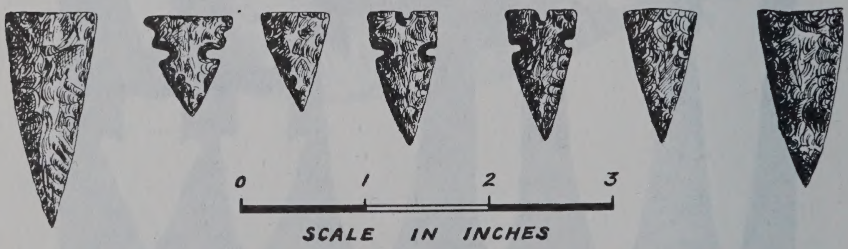

0
1
2
3
SCALE IN INCHES

Figure 4

(A), (B), and (C) usually have edge-smoothing around the basal area and (D) is quite often smoothed along the edge opposite the bevel. Beveling is common in all patterns although the Fishtails (C) are ordinarily beveled to the right in contrast to (A) and (B) which are usually left bevels. In Figure 3 the most common form of the five patterns is illustrated; however, the forms vary as follows:

Narrow Notch (A). The forms differ as to the angle of obliquity of the notch and the contour of the base, various combinations of which give rise to numerous modifications.

Shank Type Barbed (B). In this pattern the shank ranges from short to long and likewise the barbs vary in size. Most of the barbs are pointed, but a few are blunt.

Fishtail (C). Most of the Fishtails are un-notched but some have a shallow indentation suggestive of a notch. A few bulge near the pointed end and are comparable to the Folsom forms. Fluting and apparent attempts at fluting seem to indicate a further association with the ancient forms. Many of the Fishtails would qualify as Generalized Folsoms.

Double Pointed Scraper-Knife (D). Some of the forms are beveled along one edge while others are not. Many of those which are beveled have the opposite edge ground smooth as if for protecting the hand; however, edge-smoothing is not always present.

Fishtail-Like Knife (E). Most of these implements hold true to the pattern illustrated. Some have edge-smoothing around the basal area.

Type III - Small points varying in length from 17 to 40 mm. The majority appear to have been fashioned from the flake, as one side is often smooth; however, a fair percentage have flake scars over both surfaces and cross-sections which are double-convex. Some of them were made from curved flakes and the finished point has a longitudinal section which is concavo-convex. Workmanship varies greatly but for the most part they are rather nicely made. Un-notched forms occur but the great majority are notched. The more simple round and hooked notches predominate. A few of the points are serrated. Type III points are usually associated with the larger Type I points.

Type IV - Small points with dimensions similar to those of Type III and of forms usually classified as Mississippian. The majority have small flake scars over both surfaces and were probably fashioned from thick flakes. Outlines are generally triangular, some being notched and others un-notched. Some of the notched specimens are of the multiple notch variety and/or have an extra notch at the center of the base. Many of these resemble the Monks Mound forms from the Cahokia group opposite St. Louis; aside from appearance, however, there is no evidence of Mississippian association.

SITE MA1

MA1 is a hilltop site over which relic collectors have hunted for many years. It is located in Marion County, Missouri, about four miles

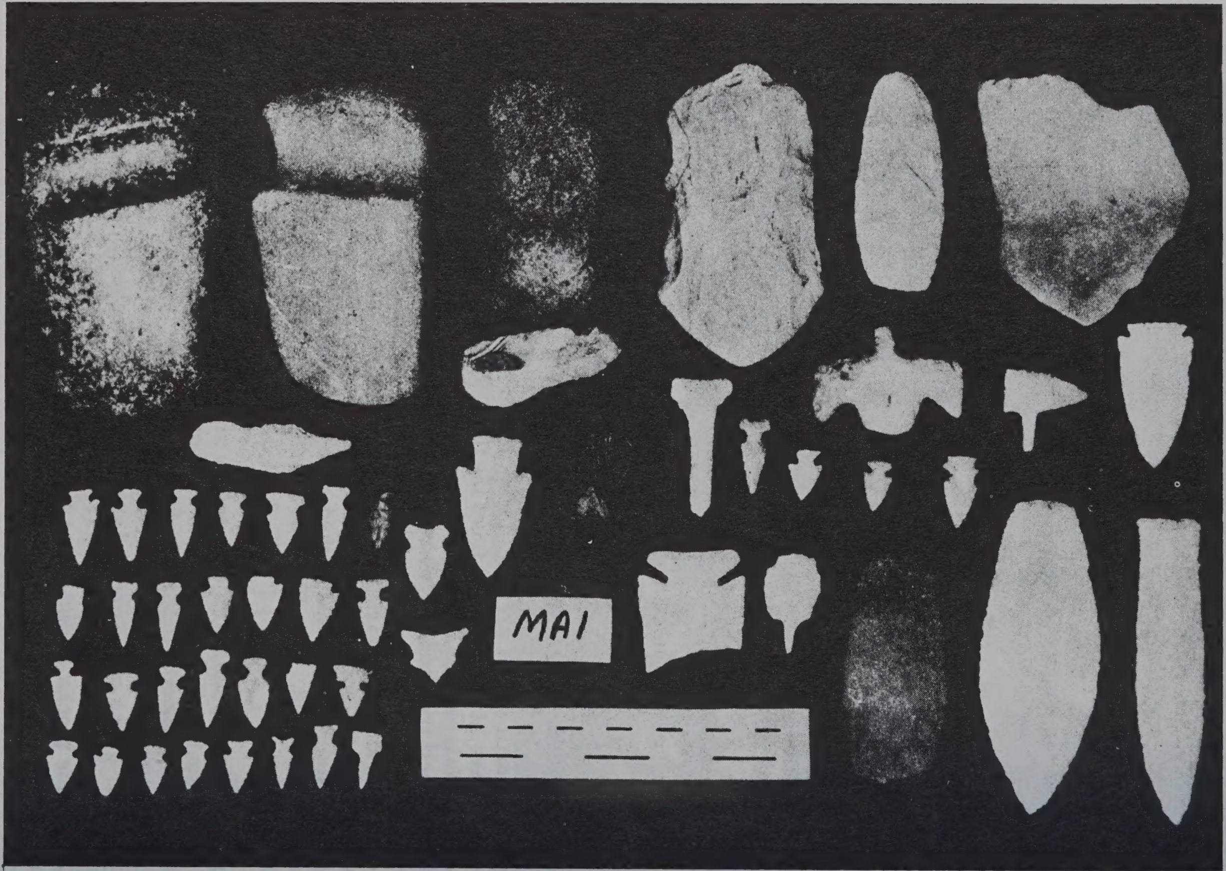


PLATE IV

Artifacts from MA1. Scale is indicated by dashes; short dashes are centimeters- long dashes, inches.

northwest of Hannibal. The nearest large body of water is a slough of the Mississippi River, known as the Bay De Charles, which lies one mile to the northeast. The Mississippi River is about two miles distant but two branches of a spring-fed creek are quite close to MA1. The site seems to center around a row of mounds on the crest of the hill but it also extends down the long slopes of the hill in several directions. There are sixteen mounds lining the ridge through a cultivated field and into an adjoining woods. In the woods the mounds are larger, as probably were those in the field before the leveling process of cultivation. Some of these mounds show signs of excavation but there is no record concerning them. All of those in the field have been plowed over until they are almost level; and with each plowing, many limestone slabs are exposed and hauled away. In one of these mounds an extended skeleton was uncovered lying directly on a pavement of flat limestone slabs. In another, charred bones are exposed with each plowing, indicating cremation. It is quite likely that many of the artifacts from the field have been plowed out of the mounds. In fact a polished grooved axe, a slate gorget, a long chert knife, and a chipped thunderbird were found in such a position as to indicate an association with the mounds.

ANALYSIS OF MA1

Costume and Dress

1. Rectangular gorget of slate, finely made	1
2. Broken gorget, probably celt-shaped. Five notches at top and incised decoration on one side representing an arrowhead or thunderbird with drilling at head or eye. (Break makes it impossible to determine.)	1

Economic And Artistic Complex

Polished Stone

1. Grooved Axes, 130 x 80 mm., finely made, 3/4 groove	2
2. Celt, 90 x 60 mm.	1

Rough Stone

1. Small slab of red hematite with evidence of scratching and grinding.	1

Chipped Stone

1. End or snub-nosed scraper	1
2. Rough chisel or gouge, 88 x 35 mm.	1
3. Drills or perforators:	
Secondary flaking on curved flake.	1
Very small, length 22 mm., from flake	1
Short point with large oval base	1
Unnotched with straight base, length 55 mm	1
4. Knives- 120 mm. in length; one expanding to 45 mm. at center, other with sides parallel and width 27 mm.	2

5. Unusual forms:

Fox-head effigy or projectile point which is very short in comparison to width	1
Thunderbird with head partly broken	1
Triangle with drill-like prong projecting from one side. Has the appearance of a miniature hafted celt. May be an unusual form of perforator.	1

6. Club-head or unnotched hoe, length 120 mm.	1

Military And Hunting Complex

1. Few large projectile points have been recovered. They are equally equally divided between Type I and Type II. Classified as to outline[3] they are as follows:

Narrow Notch Type, No. 2A	1
Shank Type Barbed, No. 36C	1
Shank Type Barbed, No. 321A	1
Round Notch Type, No. 2B	1

2. The smaller flat flake points of Type III predominate and greatly outnumber the large projectile points. A few Type IV points are also present. Length of small points varies from 19 to 31 mm. Classified as to notch they are as follows:

Triangular and notched only in one corner	3
Triangular with double notches. (Upper set of notches seem to be ornamental nicks.)	1
Double notched, not definitely triangular	1
Round Notch Types	17
Question Mark Types	3
Shank Type Barbed	4
Stem Type	2

Pottery Complex

1. Pottery consists of small, much weathered, grit-tempered sherds, usually yellowish-brown in color. Only one sherd of any size has been procured. It is definitely Type I and appears to be from a globular pot with 40 mm. vertical neck. There is a notched decoration at the rim and the surface is cord roughened. Diameter at the rim is approximately 234 mm.

Of the three sites located in Section 12 (MA1, MA2, and MA3), it is believed that MA1 is the oldest. This assumption is based on the facts that no shell or bone has been found among the materials from the field and the artifacts coincide with the sequence of trait development as discussed later in this writing. The proximity of the mounds and the fact that some of the materials may have been plowed out of them may account for the presence of artifacts not common on village sites in this vicinity. While pottery is relatively rare, the preponderance of small points, spalls, broken pieces, and general camp-site material would definitely mark the location as that of a village site as well as a burial ground. MA1 is characterized by numerous small points, few large points, and a sparsity of pottery. Small points are mostly of Type III; large points are both Type I and Type II. Pottery is Type I.

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[3] Eichenberger, J. Allen, "Notched Chipped Implements Classified", Missouri Archaeologist, 3:2, June, 1937.

SITE MA2

MA2 is located about four miles northwest of Hannibal in Marion County, Missouri. It is bounded by Clear Creek on the northwest, the Bay De Charles on the northeast, and by hills rising behind it to the southwest. The Mississippi River is about one and one-half miles distant. The village was situated in the second bottoms and when the Mississippi River is at flood stage, the Bay De Charles and Clear Creek back up to the very edge of the site. Within the area of the village was one large mound, approximately sixty feet in diameter and six feet in height. This mound was destroyed a short time ago to furnish a fill for washes in the field. Numerous skeletons intermingled with limestone slabs and many river shell were torn out by the scraper but if any artifacts were present they were not observed. This site has been known to collectors for many years and has yielded numerous specimens, most of which have been scattered. According to several old residents, this was the site of a settlement made by a Frenchman, Maturin Bouvet, in the year 1795 and destroyed by the Sac and Fox Indians in 1800. The history of Marion County is not clear as to the exact location of this settlement and trading post. To the writer's knowledge, no trade material has been found on the site.

Thos. H. Bacon in "A Mirror of Hannibal," published in 1905, writes of this site, "The most prolific finds of Indian relics have been unearthed in the field on the first bench south of Clear Creek, the site of the upper end of the old French village, the farthest north of any Louisiana French cession or settlement. Below that region is seen the refuse heap of an ancient Indian kitchen, mussel and fresh water shells, exposed by the cutting of the public road."

ANALYSIS OF MA2[4]

Costume And Dress

1.	Broken cylindrical baked clay bead, diam. - 8 mm	1

Economic and Artistic Complex

Polished Stone

1.	Flat type 3/4 grooved axes, one 122 x 80 mm., other 150 x 95 mm.	2
2.	3/4 grooved axe - 89 x 60 mm	1

Chipped Stone

1.	Rough Chert discs, diam. - 40 to 70 mm	3
2.	End or snub-nosed scraper	1
3.	Bunt variety scrapers	3
4.	Large spall with secondary flaking along one edge	1

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[4] Analysis does not include material from MA2:1.

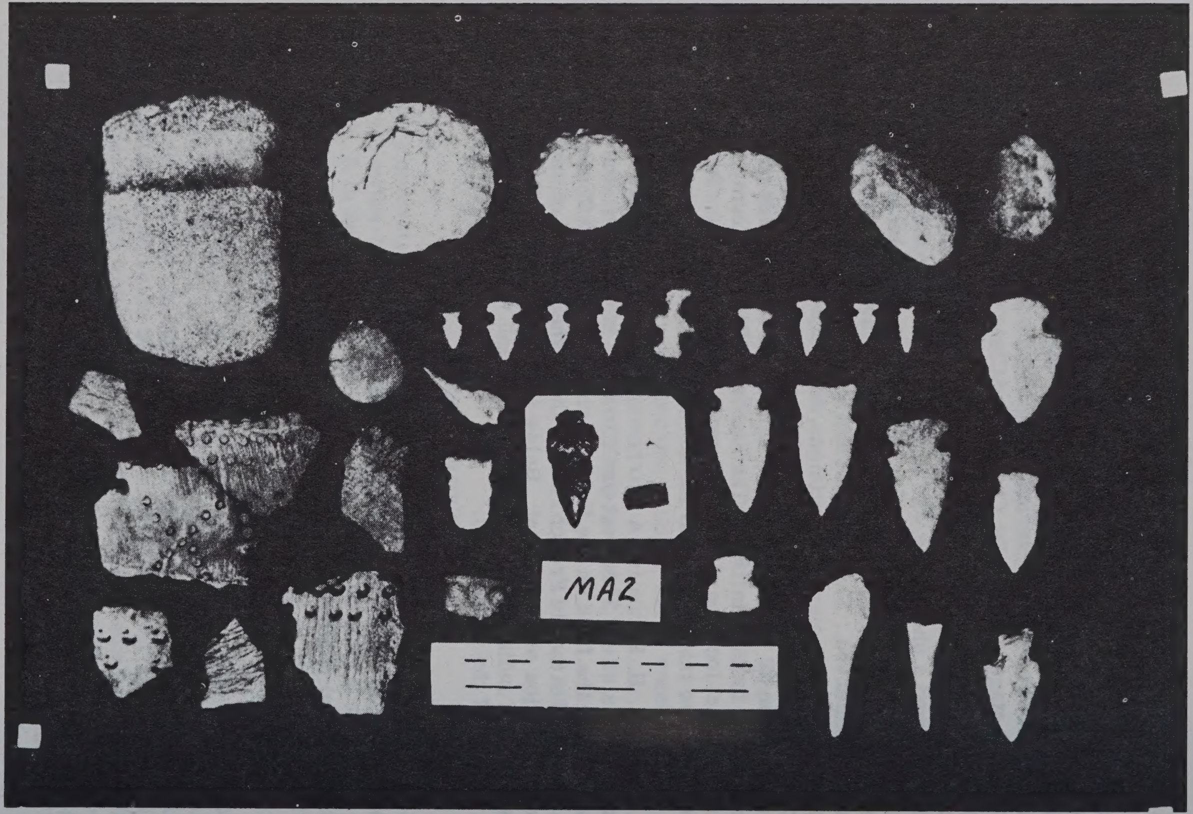


PLATE V

Artifacts from MA2. Scale is indicated by dashes; short dashes are centimeters- long dashes, inches.

5.	Triangular cross-section perforators, length - 40 to 50 mm	2
6.	Unnotched drill, irregular base	1
7.	Long slender flakes somewhat similar to flake knives	3
8.	Flake knife with slight secondary chipping	1
9.	Chert core, roughly conoidal	1
10.	Oval turtleback - 32 x 60 mm	1
11.	Thunderbird effigy from flat flake	1

Rough Stone

1.	Limestone sinker-stone with full groove - 135 x 154 mm	1

Military And Hunting Complex

1. The larger projectile points are predominantly of Type I. Classified as to outline they are as follows:

Round Notch Type, No. 2	2
Question Mark Type, No. 1	3
Shank Type, No. 2	1
Shank Type	2
Shank Type Barbed, No. 1	2
Unnotched or very slight indentation	1

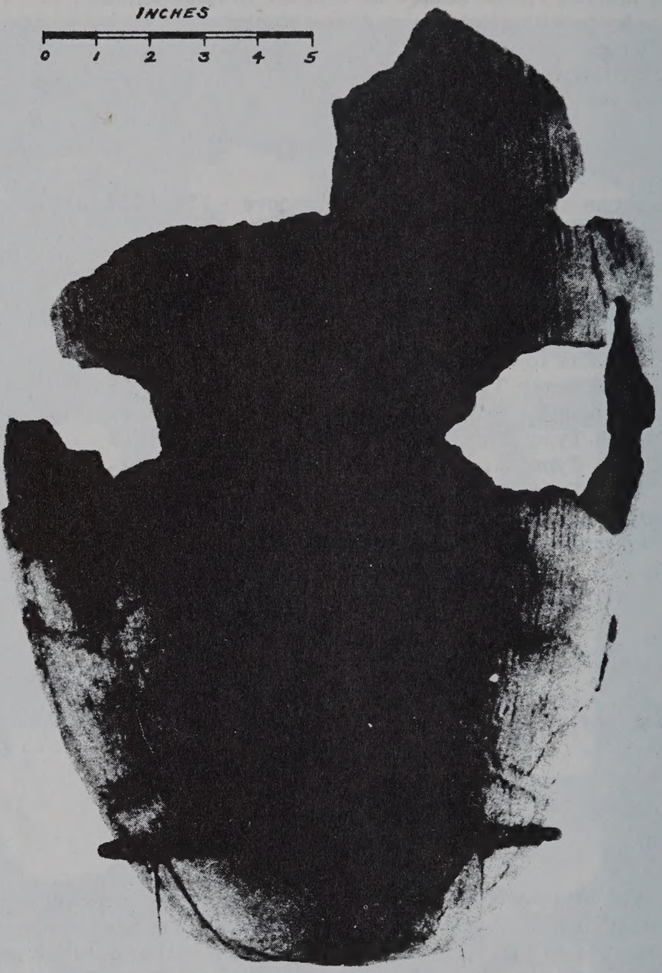
2.	Small points - 17 to 30 mm., mostly of flat flake technique with round and hooked notches. All are Type III	11

Miscellaneous

1.	Baked clay disc, diameter - 36 mm., thickness - 16 mm., edges rounded	1

Pottery

Pottery is of Type I and decoration is for the most part confined to rim-notching, although a small number of punctate and embossed specimens are in evidence. Embossing is of a rather delicate nature in contrast to the coarsely embossed specimens of Type II pottery from MA3, located only a short distance away. Body treatment is about equally divided between cord-roughening, unintelligible roughening, and careless smoothing although cord-roughening was no doubt the favorite treatment, since much of the unintelligible roughening is apt to be weathered or indistinct cord marks, and since much of that which is classed as carelessly smoothed likely represents basal portions of cord-roughened vessels. A fair percentage, however, are definitely smooth, even near the rim. About twelve percent of the body sherds have a bark-like finish probably resulting from the imprints of widely spaced, loosely twisted fibers with frayed ends, partially smoothed over. The two latter traits, smooth finish and bark-like finish, are not always present on sites yielding Type I pottery and may furnish a basis for the subsequent breaking down of Type I pottery into a series of sub-types.


INCHES
0
1
2
3
4
5

MA2:1

PLATE VI

Pottery Tabulation Chart

Tempering - Grit

Sherds	Number observed	1		2		3		4		5		6		7		8		9		10		11		12		13	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Rim	19	7	37	3	16	8	42	1	5	1	5	9	47	5	26	1	5	1	5	1	5	2	11	1	5		
Body	65	17	26	21	32	19	29																	8	12	2	3

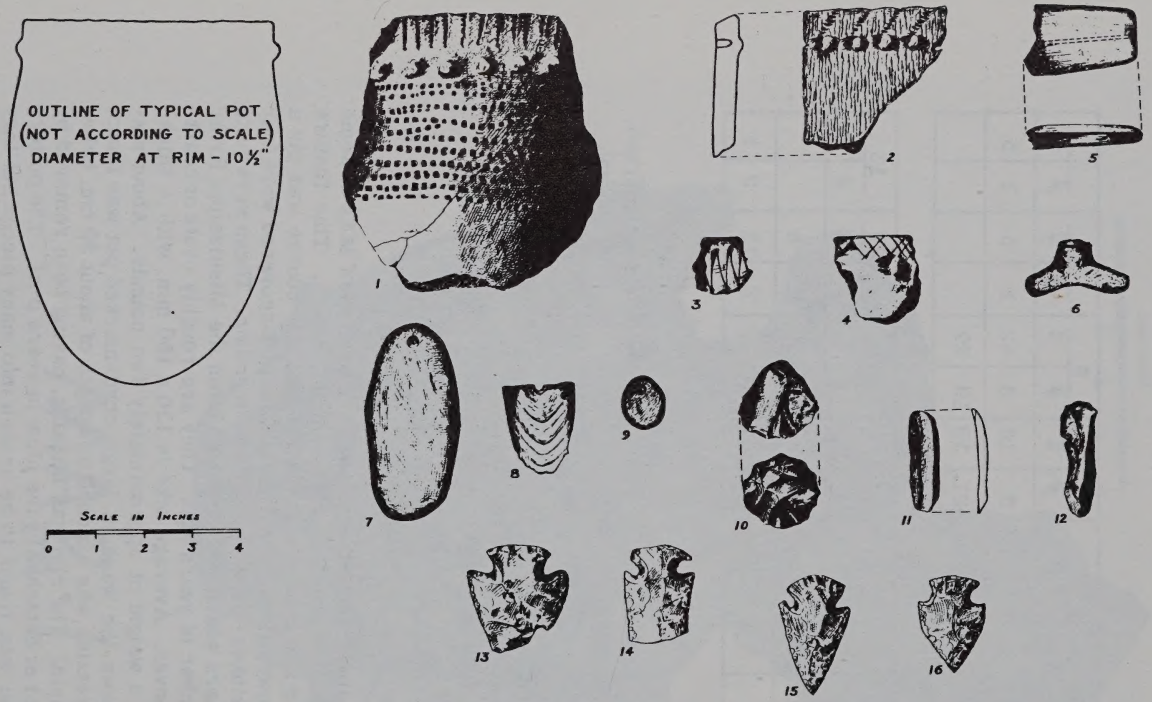
Pottery traits-

1. Cord-roughened.
2. Unintelligible roughening.
3. Carelessly smoothed.
4. Reed punctate.
5. Punctate (not reed).
6. Lip notched with cord-wrapped cylinder.
7. Lip notched (not cord-wrapped cylinder).
8. Stamped (simple).
9. Brush-marked.
10. Undecorated.
11. Embossed.
12. Bark-like.
13. Perforated.

MA2:1.

MA2:1 is located in the extreme southern portion of MA2 at some distance from the area of greatest refuse accumulation. This feature was discovered after a nearby creek had changed its course and cut a ditch through the plowed field. The first artifacts discovered were four grooved limestone sinker-stones lying close together. These were quite similar to many others which were dredged from the Mississippi River near Hannibal a number of years ago. They are roughly ovate or heart-shaped with full grooves. Average size is 130 x 150 mm. with a thickness of 40 mm. and a weight of approximately two pounds. About sixteen feet farther down the wash, a large cord-marked pot was found. Its circular cross-section was exposed at a depth of about 30 cm. below the surface of the field. The rim was missing, having been removed by the force of the water or detached by the plow in years past. The pottery was very fragile and was found to be broken into many pieces but they were carefully removed and later fitted together. The vessel is amphora in form with conoidal base and measures 41 cm. in height with a greatest diameter of 30 cm. Allowing for the missing rim, its height must have been at least 51 cm. Many sherds of pottery, a chert gouge, a small notched point, and several scrapers were found in the same vicinity.

A few days later a fireplace or refuse pit was located nearby and excavated. It yielded numerous burned limestone pebbles, many river


OUTLINE OF TYPICAL POT
(NOT ACCORDING TO SCALE)
DIAMETER AT RIM - 10½"
SCALE IN INCHES
0
1
2
3
4
1
2
5
3
4
6
7
8
9
10
11
12
13
14
15
16

CHARACTERISTIC ARTIFACTS FROM MA3

Figure 5

1 Embossed Potsherd With Dentate Stamping and Cord Wrapped Cylinder Rim Notching.
2. Cord Marked Sherd With Embossing and Cord-Wrapped Cylinder Rim Notching.
3. Rim Sherd With Rocked Rouletting.
4. Rim Sherd With Embossing and Cross-Hatching.
5. Stem of Broken Platform Pipe of Baked Clay.
6. Crude Platform-Like Pipe of Baked Clay.
7. Crude Ovate Gorget.
8. Broken Banded Slate Gorget With Repair Drillings.
9. Small Ovate Gorget.
10. Conoidal Chert Core.
11-12. Flake Knives.
13-14-15-16. Projectile Points.

shells, a few fragments of bone, quite a number of large chert spalls, and many sherds of pottery representing parts of three or perhaps four vessels. All sherds were cord-marked and the rim specimens, representing two different vessels, were decorated with cord-wrapped cylinder notchings at the edge. Only one rim sherd was large enough to indicate the shape of the vessel. It was apparently part of a vessel having a diameter of 19 cm. at the rim and expanding sharply below a 5 cm. collar. The pottery is all grit-tempered and varies in color from brown to reddish-brown and is more or less blackened in spots from burning; wall thickness varies from 4 to 8 mm. on the same specimen.

CONCLUSIONS CONCERNING SITE MA2

Judging from the volume of material yielded year after year by this site, MA2 must have been one of the largest centers of population in this district. Although all material recovered is decidedly Woodland, it is likely that the site was used over a long period of time and until relatively recent times. While no conclusive evidence has been found, it is believed that most of the material from MA2 is older than that of MA3 which is located only a short distance away. In any event, it is unlikely that MA2 and MA3 were occupied at the same time, since there is but slight evidence of the borrowing of traits. All cultural material is basically Woodland and is typical of that which usually accompanies Type I pottery and Types I and III projectile points. Included are grooved axes, celts, notched scrapers, end scrapers, perforators, and flaked thunderbirds. The gouge, which would be expected in great numbers in this complex, is present but rare. Judging from the contents of a large mound included within the area of the site, burial traits were true to form with few grave offerings, stones piled on and around burials in no apparent order, and a preponderance of river shells. Location of the mound in the flat is unusual, however. On the hills that rise behind the site are several mounds, probably containing the remains of other of these peoples. No recorded excavations of these mounds have been made.

SITE MA3

Village site MA3 is located about four and one-half miles northwest of Hannibal in Marion County, Missouri. It is situated near the bank of the Bay De Charles on ground barely high enough to escape inundation when the Mississippi River is at flood stage. The greatest accumulation of refuse is along the railroad right-of-way which appears to cut through the center of the village site. Originally, the site may have extended farther to the east toward the bay, but it is now impossible to determine, since several feet of topsoil have been removed from this area for the construction of a levee. There are no mounds closer to the site than those located on the bluffs which rise behind the county road to the west. Whether these mounds were built by the occupants of MA3 or by some other group will be a matter of speculation until careful excavations are made. Some of the mounds have been opened but there is no record concerning them.

The site is characterized by heavy, cord-marked or smooth, grit tempered pottery (Type II), mostly amphora in shape. Decorations

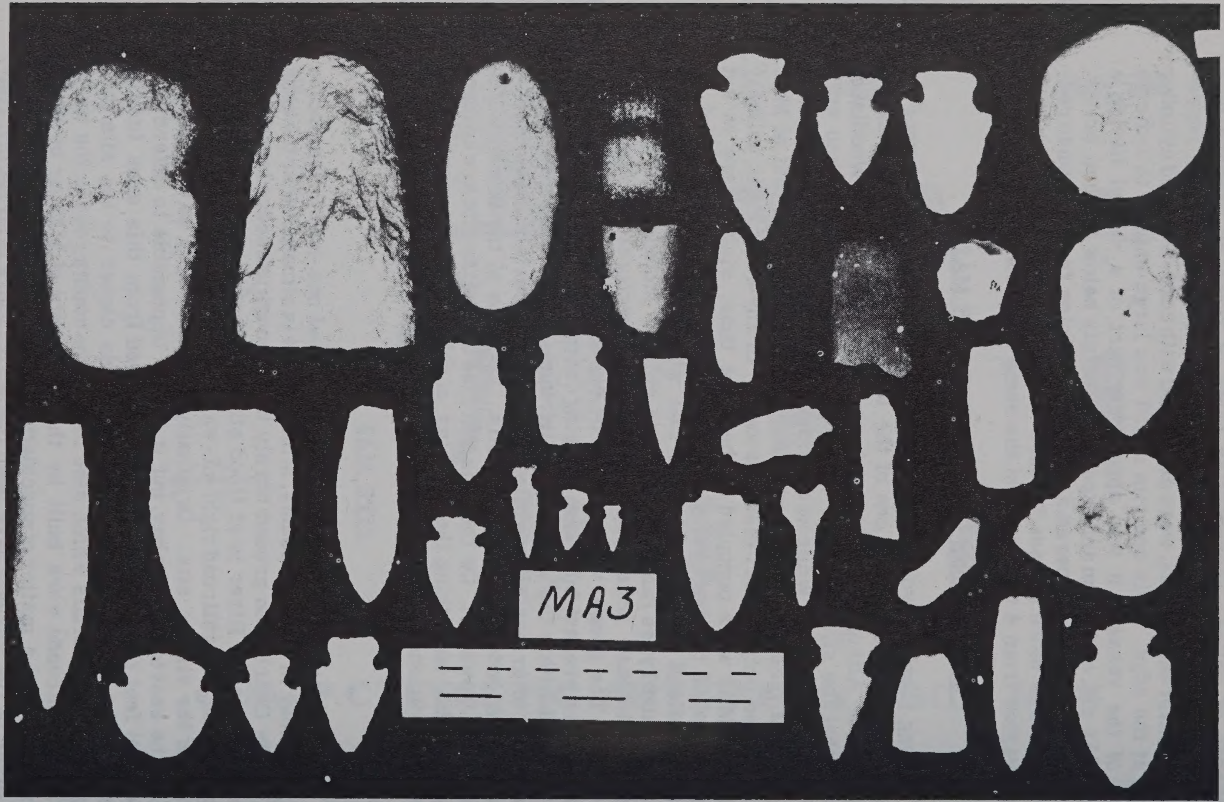


PLATE VII

Artifacts from MA3. Scale is indicated by dashes; short dashes are centimeters- long dashes, inches.

consist of embossing, stamping, and lip notching. The notches usually appear to be cord-wrapped cylinder impressions. Flint cores of rather symmetrical conoidal form occur, along with many silver knives. Projectile points are mostly hooked notch varieties with convex bases. Medium to crude pottery platform pipes are in evidence. The artifacts described in the following analysis are all surface finds, mostly from that portion of the site lying to the east of the railroad tracks.

ANALYSIS OF MA3

Costume And Dress

1.	Ovate gorget with single perforation. Made from a natural pebble roughly worked on both surfaces, length-101 mm., width-48 mm..	1
2.	Ovate gorget with single perforation made from a natural pebble 4 mm. in thickness, 26 x 21 mm.	1
3.	Broken gorget of fine workmanship. Probably had single perforation originally but upon becoming broken was perforated in two places along the broken edge for repair	1

Ceremonial Complex

1.	Stem from broken platform (?) pipe made of grit-tempered baked clay, width at bit- 25 mm. broadening toward bowl	1
2.	Crude platform pipe of baked clay, length including spur- 53 mm.	1

Economic And Artistic Complex

Polished Stone

1.	Miniature axe with 3/4 groove, 55 x 35 mm..	1
2.	Grooved Axe, 126 x 65 mm. (3/4 groove)	1
3.	Base of celt. Thick type with oval cross-section	1
4.	Spheroid of chert, diameter- 60 mm. Probably fashioned from a natural chert ball	1

Rough Stone

1.	Broken unfinished celt (?) showing flaking and pecking	1
2.	Crystal from broken quartz geode. May be graver or ornament.	1

Chipped Stone

1.	Long flakes or flake knives with no secondary chipping. (Many others reported)	48
2.	Conoidal chert cores. (Others reported)	4
3.	Bunt variety scrapers. (4 notched, 3 un-notched)	7
4.	Un-notched drill with concave base.	1
5.	Rough leaf-shaped scrapers or blanks	4
6.	Broad leaf-shaped scraper or knife (Large flakes but very thin and nicely made)	1
7.	Knives, single pointed with straight bases, length- 70 to 115 mm .	3

SERIES PROGRESSES TOWARD PROMINENT SHANK.

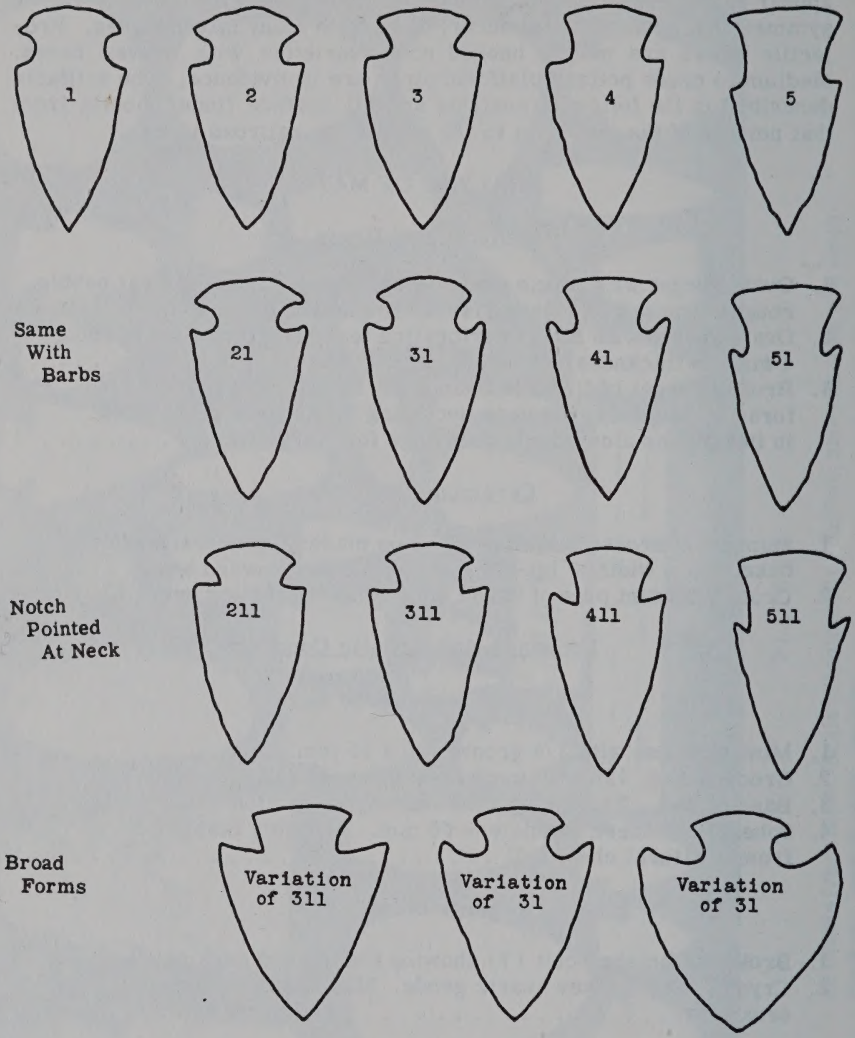

1
2
3
4
5
Same With Barbs
21
31
41
51
Notch Pointed At Neck
211
311
411
511
Broad Forms
Variation of 311
Variation of 31
Variation of 31

Figure 6

8. Rough gouge, 75 x 50 mm. 1
9. Points of large implements, one broad and thin. 2

Military And Hunting Complex

1. Small points, 18 to 43 mm. with flake scars on both surfaces, forming double-convex cross section:
   Triangular point finely made, length- 43 mm. (Type IV). 1
   Round notches, length- 18 to 37 mm. (Type III patterns) 3

2. Large projectile points are entirely of Type I. Classified as to outline they are as follows:

   Round Notch Types 3
   Stem Types 2
   Shank Types Barbed 2
   Characteristic types with convex bases: (See Fig. 6)
      No. 1 3
      No. 2 4
      No. 3 2
      No. 4 2
      No. 5 2
      No. 21 3
      No. 31 6
      No. 41 3
      No. 211 1
      No. 311 3
      No. 411 1

Pottery Complex

Pottery is mainly of Type II, although sherds have been found representing at least one vessel of Type I. No further description of pottery is necessary, since MA3 is the type station for Type II pottery. The few sherds of Type I pottery may be intrusive from MA2, which is situated only a short distance away. Trait occurrences are recorded in the accompanying charts.

Sherds	Number observed	1		2		3		4	
		#	%	#	%	#	%	#	%
Rim	45	15	33	7	16	23	51	1	2
Body	34	14	41	8	24	8	24		

5		6		7		8		9		10		11	
#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	2	27	60	7	16	2	4	17	37	7	16	2	4
				1	3								

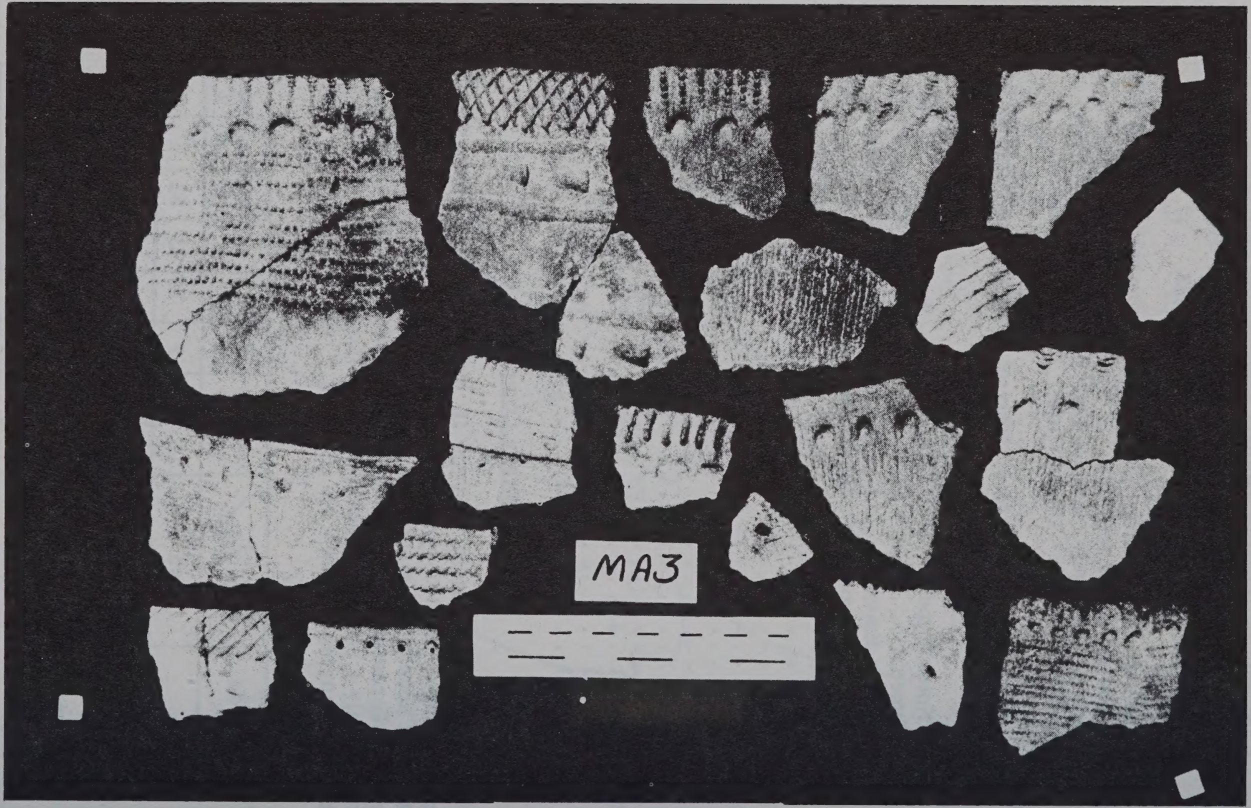


PLATE VIII

12		13		14		15		16		17		18	
#	%	#	%	#	%	#	%	#	%	#	%	#	%
2	4	5	11	4	9	1	2					1	2
		1	3			1	3	1	3	3	9		

Pottery Traits

1. Cord roughened.
2. Unintelligible roughening.
3. Carelessly smoothed.
4. Rocked rouletting.
5. No decoration
6. Embossed.
7. Trailed.
8. Incised.
9. Lip notched, c.w. cylinder.
10. Lip notched, otherwise.
11. Corded decoration.
12. Stamped (simple).
13. Stamped (dentate).
14. Punctate.
15. Perforated.
16. Bark-like.
17. Basket impression.
18. Greatly expanded lip.

TEST PIT

A small test pit excavated just east of the railroad tracks in the southern portion of MA3 yielded numerous artifacts and potsherds quite identical to the material found on the surface. The majority of material occurred in the black, sandy loam at a depth of between 0 and 21 inches, the most prolific area being below the plow-line to the 21 inch level. Below the 21 inch level the soil gradually became lighter in color and more compact and clay-like until at a depth of 36 inches, a compact bed of coarse river gravel was reached.

At one place in the pit several large limestone slabs were uncovered resting immediately on the gravel bed. Discoloring of these stones indicated an association with fire and it was assumed that they represented the remains of a fireplace. Near these stones was another limestone block, the shape of which indicated that it might have been worked. However, the surface was so eroded that no pecking or smoothing was apparent. A U-shaped slot in one side of the stone suggested use as an anchor for a cooking stick tilted at an angle over another stone. One small sherd of pottery with surface missing and a part of a broken chert scraper were obtained from this lower level.

Several pockets of river shells, some entire shells with halves attached, were uncovered at depths as great as 21 inches. In the same areas were fragments of bone and small pieces of limestone that had been in contact with fire.

The question arose as to whether or not the soil on the site had been disturbed, since it was within the railroad right-of-way and also because of the fact that so much material of a similar pattern extended to so great a depth. However, no evidence of disturbance was detected and the fact that the river shells were found in pockets gave strength to the belief that no major disturbance had taken place.

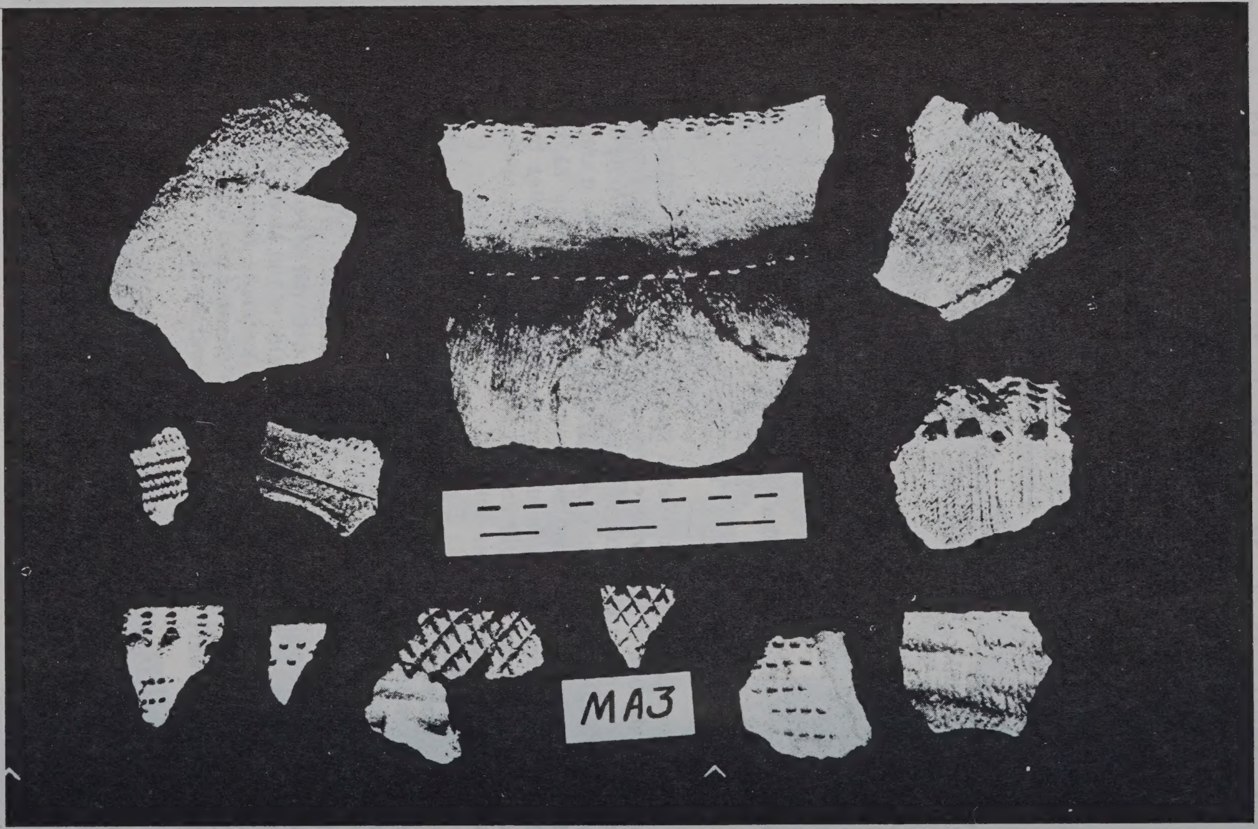


PLATE IX

ANALYSIS OF TEST PIT

Economic And Artistic Complex

Chipped Stone

1. Flake knives	11
2. Flake knife with notches	1
3. Basal portions of broken knives (one leaf-shaped)	2
4. Rough scrapers (one with polish near center of one surface)	2
5. Turtleback	1

Military And Hunting Complex

1. The larger projectile points are Type I. All have convex bases and are of patterns which are characteristic of this site. (See Fig. 6).

No. 3	1
No. 311	1
No. 411	1

2. Small point of flat flake technique with round notch.	1

Pottery Complex

Sherds	Number observed	1		2		3		6		7		9		13		17	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Rim	18	5	28	5	28	8	44	17	94			11	61	1	6		
Body	220	63	29	81	37	74	34			1				2	1	2	1

See analysis of MA3 for trait index.

CONCLUSIONS CONCERNING SITE MA3

Village site MA3 seems to have been a habitation of peoples of a cultural pattern affected by Hopewell influence, although none of the elaboration of the Hopewell ceremonial complex is present. Lack of ceremonial evidence is, of course, rather to be expected in village site material. Hopewellian traits include pottery with design made by rocked rouletting, many silver knives, chert cores, and crude platform pipes of clay. MA3 compares favorably with sites in Illinois showing Hopewellian affiliations and with those reported in Clay and Platte Counties, Missouri[5], as well as with the Creve Coeur Site near St. Louis[6]. Like many of the Illinois sites, and in common with other such sites in Missouri, much of the pottery is of the heavy variety with decorations consisting of embossing, stamping, rim-notching and cross-hatching. The heavy ware is almost identical to that reported from other Missouri sites but the thinner ware with collar and channel seems to be absent. However, the traits of this finer ware, cross-hatching of rims and rocked rouletting, carries through on a small percentage of the heavy ware. Projectile points are similar to those of the Creve Coeur Site, both in design and workmanship, but flake knives are much more prevalent at MA3.

A large percentage of the projectile points are of designs which are certainly characteristic of this site, and which, it is believed, may prove to be diagnostic of this cultural pattern. They are, for the most part, of patterns which fall into the classification of shank types and shank types barbed. In a general way they resemble Shank Type Barbed number 34, 341, 342, 3411, and 3421[7]. The base is almost invariably convex, in which way these specimens carry a resemblance to the dovetail points of Type II (Narrow Notch Type, C): which has been referred to as a diagnostic Hopewellian point, but which belief the writer does not share.

Some of the notches are of the round variety, but in most cases they are placed close enough to the convex base to create a shank-like appearance which distinguishes it from the ordinary Round Notch Type. Others are definitely shank types and a series can be arranged showing a gradual development from the round notch forms to those with well developed shanks. Some of the notches draw in to a sharp point at the neck and form a well defined shank and wide barb, while others which are similar are rounded and sweeping, giving the projectile point a tendency toward exaggerated broadness. Still others, which are of Question Mark Types or hooked notch varieties, have the distinctive appearance that identifies them with the other forms. The similarity between these various forms is difficult to describe except for the convex base and the tendency toward flaring notches. Technique is of Type I and most of the points are rough, although a few, especially the broader points, are more skillfully fashioned and relatively thin, resulting from broad flake scars which often carry well across the face of the blade. The impression is that the artisan could have produced a much finer blade had he given more care to the secondary flaking around the edge.

MA3 appears to be a pure site, evidencing considerable occupation by peoples of a single cultural pattern. No estimate is made of the age of materials from the site but the presence of shell and very small bones near the surface should be some evidence that no great age is indicated.

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5. Shippee, op. cit.
6. Blake, Leonard, "A Hopewell-like site near St. Louis, "Missouri Archaeologist, 8:1, March, 1942.
7. Eichenberger, op.cit.

SITE MAH

MAH is located just west of the city limits of Hannibal, Missouri in the Southeast quarter of Section 25, Township 57 N, Range 5 W. It is a little more than two miles from the Mississippi River, which is the nearest large body of water, but a small creek known as Minnow Branch is one-half mile distant. A mile to the north is Indian Mound Park with several large mounds and a spring which emits a considerable volume of water. Several smaller springs are more convenient to MAH but none is closer than a quarter of a mile. Most of the projectile points have been found on the crest of the hill which overlooks the Hannibal valley, but the site, like others producing Type II points, is poorly defined due to the lack of pottery, shell, bone, and charcoal.

Most of the artifacts in the analysis have been picked up by the owner of the land over a period of many years. Fortunately he retained not only the perfect points but the broken pieces and those of poorer quality as well. He is a careful and responsible person and the information which he has given concerning the source of the artifacts in his possession is not questioned. This site has been chosen for analysis in preference to other similar sites investigated by the writer because of the larger volume of material available. Characteristics of MAH and similar sites include hilltop location at some distance form a large body of water, the prevalence of Type II and Type IV projectile points, and the absence or extreme scarcity of pottery and other campsite refuse except flakes and broken chipped implements.

ANALYSIS OF MAH

Polished Stone

V-edge discoidal of greenstone	1

Chipped Stone

Type I Projectile Points:	
Round Notch Type, 45 to 76 mm	3
Stem Type Barbed, 70 mm	1
Shank Type Barbed, 62 to 75 mm	6
Stem Type, 55 to 87 mm	4
Shank Type, 45 to 70 mm	6
Miscellaneous broken points	5
Other Chipped Implements of Type I Technique:	
Knives with straight and round bases, 73 to 110 mm	7
Drill with leaf-shaped base, 80 mm	1
Large blanks or scrapers, 95 to 115 mm	8
Type II Projectile Points:	
Shank Type Barbed-	
No. 3, (Broken at neck) length probably 115 mm	1
No. (?), 40 to 60 mm	3
No. 32A, 65 mm	1
No. (?), S, 95 mm	1

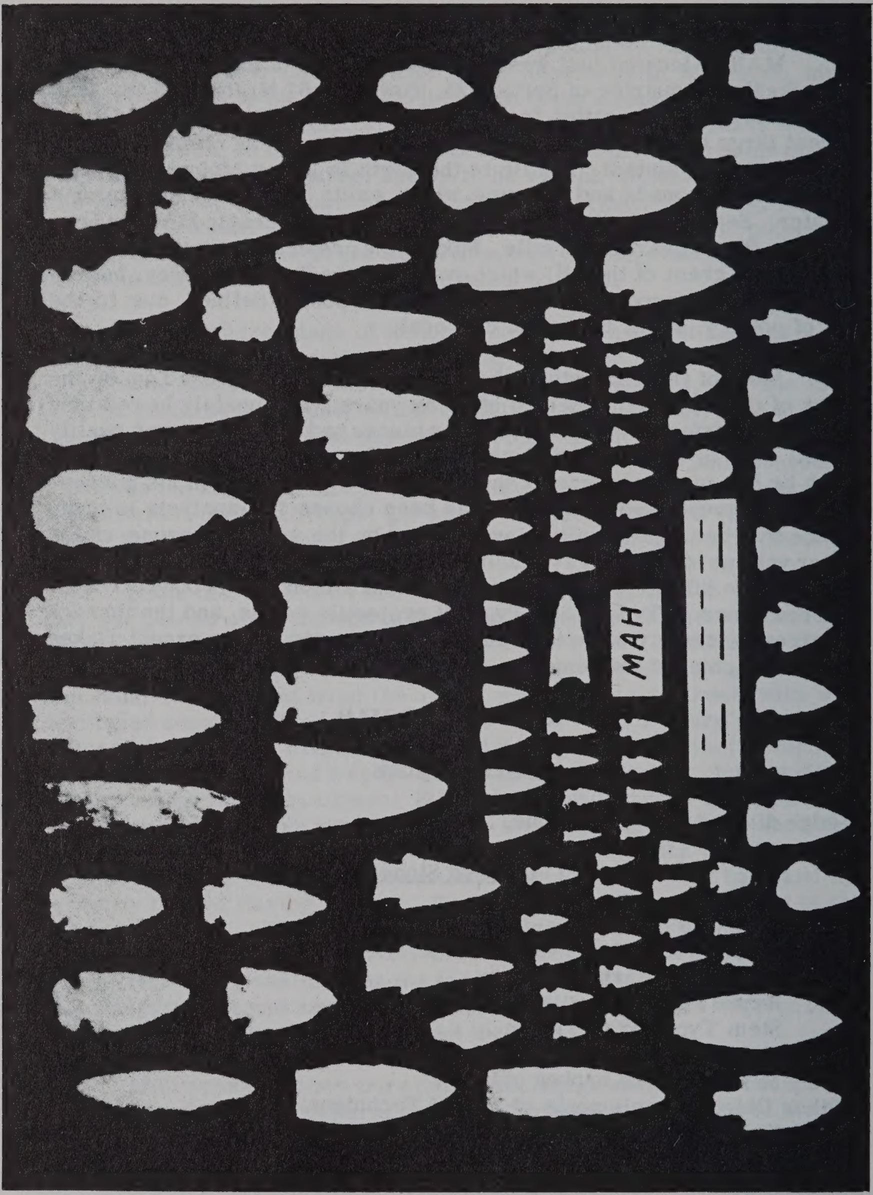


PLATE X

No. 3A, 120 mm.	1
No. 36B, 94 mm.	1
No. 36B, B1, 73 to 85 mm..	2
No. 36A, (Broken)	1
Narrow Notch Type-	
No. 3C, one 143 mm., other broken	2
No. (?), B1, 98 mm..	1
No. 3CB, 74 mm.	1
No. 2A, 83 mm.	1
Fishtail Type-	
No. 2B, Es, D1, (Broken)	1
No. 1B, Es, F1, 52 mm.	1
Other Chipped Implements of Type II Technique:	
Double Pointed Scraper-Knife, 123 mm., 1 edge bev	1
Drill with straight base, (Broken)	1
Knives with concave bases approaching Fishtail Type, 98 to 123 mm	2
Knives with round bases, 70 to 142 mm	3
Points from broken artifacts	5
Base of knife	1
Base of large knife (?), width 67 mm	1
Bunt variety scraper, 88 mm., Narrow Notch Type base	1
Bunt variety scraper, 80 mm., Shank Type base	1

Type III Projectile Points: (19 to 37 mm.- 42 studied)

Round Notch Type, definitely flake technique.	17
Round Notch Type, core technique or questionable	10
Hook notched, definitely flake technique	9
Hook notched, core technique or questionable	6

Type IV Projectile points: (16 to 36 mm.- 23 studied)

Unnotched, definitely triangular, core technique	12
Unnotched, definitely triangular, flake technique	4
Unnotched, triangular to leaf-shaped, core tech.	2
Unnotched, triangular to leaf-shaped, flake tech.	3
Side notched, triangular, extra nick in base, core technique.	2

CONCLUSIONS CONCERNING SITE MAH

Little has been written concerning the cultural affiliations of the finer (Type II) points characterizing MAH and similar sites. Perhaps this is due to the fact that such points are seldom if ever found in mounds or other places of concentration which more frequently receive prime consideration. The absence of pottery immediately institutes a challenge to the assumption that a village site is represented; however, the presence of chipped implements of varied utility makes difficult an explanation on any other premise.

Many of the points so closely follow similar patterns that one is inclined to give consideration to the possibility that they represent trade points, fashioned by skilled specialists. Other indications of specialization are: frequency of beveling and the almost ever-present edge smoothing at the base and, oftentimes around the margin of the shank. While it is true that many of the points are of a technique that fall into Type I classification, it should also be observed that a large percentage of them are of patterns not unlike the finer shank forms of Type II technique. If it be true that the Type II points represent trade pieces, it seems likely that the others are copies, fashioned locally.

Of the smaller points from this site, about thirty-five percent are of Type IV and the remainder are of Type III. This is a much higher percentage of Type IV points than are found on sites other than those characterized by the larger Type II points. It therefore appears that Type IV points may be the small point that is associated with the larger Type II points. This situation has held true in the case of a number of sites studies; however, the thesis cannot be accepted as a certainty until further investigations are completed.

It is believed that sites such as MAH represent greater antiquity than any other site discussed in this writing. Such conclusion arises from the following facts: (1) Pottery is absent or extremely rare; when present, sherds are quite small and badly weathered. This may be evidence of a pre-pottery culture or that pottery has disintegrated. (2) There is no indication of such perishable materials as bone, shell, and charcoal. (3) Some of the characteristic patterns are Folsom-like in appearance and may be classed as Generalized Folsoms, others carry some similarity to the ancient Yuma points. (4) Sites may be arranged in a series on the basis of cultural material and other traits, with such sites as MAH on one extreme and certain of the lowland sites (first river bench) at the opposite extreme. These lowland sites are almost certain to be relatively recent. for upon them are found river shells and even the smaller bones of fish in the refuse pits. Flint chipping is at its height on MAH sites but gradually deteriorates throughout the series until it reaches its lowest form on the lowland sites. On the other hand, pottery is absent or extremely rare on MAH sites but makes its appearance early in the series and shows a gradual improvement, especially as to decorative traits, until it reaches its highest development on the lowland sites.

Upon this admittedly none-too-certain evidence is rested the case for the antiquity of MAH and other sites characterized by Type II points, until more certain chronological data become available.

SITE RAS

Reference is made to an article entitled, “The Saverton Site” included in Volume 5, Number 1, of The Missouri Archaeologist, February, 1939. At the time of that writing the site was broken down into three units- V1, V2, and V3. Subsequent analysis indicates that cultural material from V2 and V3 are identical but the affiliations of V1, while probably the same, are less certain. In the following analysis, material from V2 and V3 are combined, while that from V1 is excluded.

The site is located in Ralls County, Missouri, adjacent to the Mississippi River in the southern portion of fractional section seven and the northern portion of section eighteen, Township 56 N, Range 3 W. Situated in the valley between the two village sites is a large fresh-water spring which, together with several salt springs in the Saverton flat a short distance to the south, no doubt enhanced the natural advantages of the sites. Like MA1, about ten miles to the north, the village sites cover the long slopes of sprawling hills. In common with MA1 many small points of Type III are found, although for the most part the points from RAS are of poorer quality. Some of the large points are of Type II, which is also true of those from MA1; however, most of the large points are of Type I and are somewhat crude. In contrast with MA1, pottery is found in great quantities and the gouge which is inconspicuous at MA1 is quite prominant at RAS.

Other characteristics of the site include the occurrence of crude small points of triangular outline and evidence of numerous fire or cooking pits. Within these pits are found charcoal, burned limestone, pebbles, and many slabs of broken pottery, all intermingled and in no apparent order.

There are five mounds on the site located on a bluff ridge overlooking the river. Unfortunately, most of these mounds have been disturbed; but reexamination of several of them indicates that they were built by the occupants of the nearby villages because the few grave offerings recovered closely match artifacts from the fields. The mounds appear to be the result of accretion and each contains a number of burials. Stone was used, but no particular order is in evidence, although it appears that placement was on and near the body. Occurrence of river shells near skeletons is common.

ANALYSIS OF RAS:V2 & V3

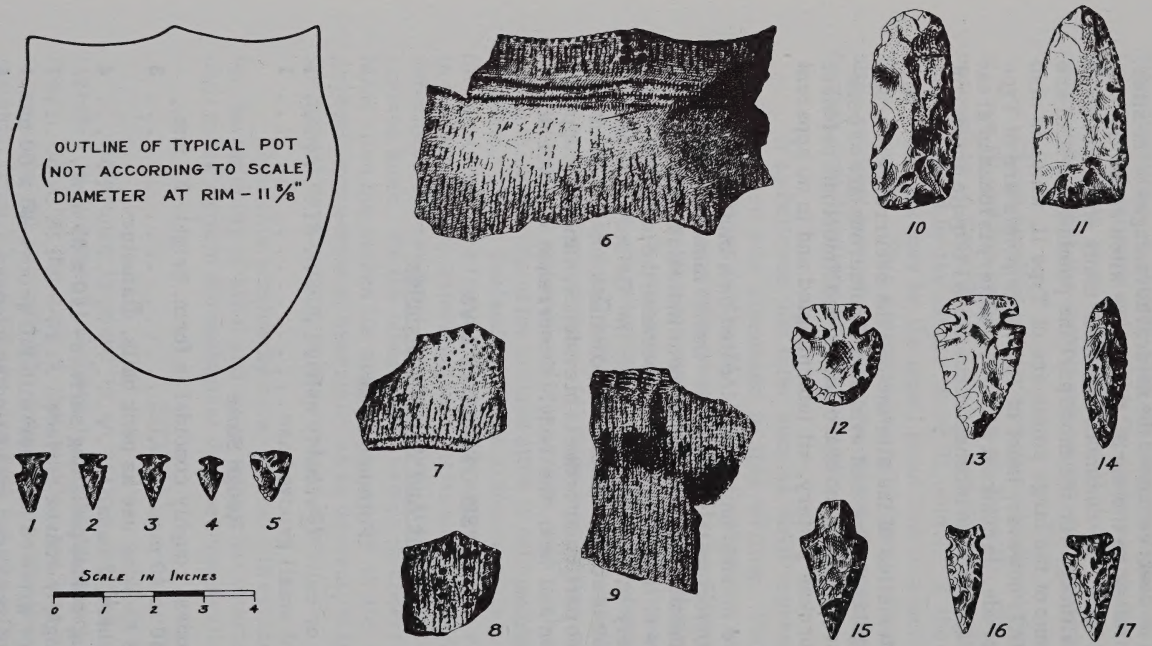
Economic And Artistic Complex

Polished Stone

1.	Poll of small axe or celt. (Probably celt)	1
2.	Portion of blade of small grooved axe	1

Rough Stone

1.	Broken quartz geodes, roughly conoidal in form, height- 33 mm., basal diameter- 30 to 40 mm.	3
2.	Natural spheroids showing use as peck balls, diameter- 50 to 60 mm. (2 chert, 2 basalt)	4
3.	Quartzite polishing-stone, polishing surface- 140 x 95 mm., oval in outline, slightly convex surface	1
4.	Crude club-head or grooved hammer with full groove-95 x 60 mm	1
5.	Irregular pieces of sandstone with grinding grooves	5
6.	Poll of medium-sized axe, grooved only on sides. (Pecked but not polished)	1
7.	Roughly ellipsoidal block of granite, pecked and partly ground- 153 x 110 mm	1
8.	Unfinished discoidals (?) pecked but not polished. One of quartz- 73 x 43 mm., other granite - 66 x 55 mm	2
9.	Chunks of red hematite, unworked	2
10.	Medium-sized celt. (Pecked but not polished)	1


OUTLINE OF TYPICAL POT
(NOT ACCORDING TO SCALE)
DIAMETER AT RIM – 11 5/8"
1
2
3
4
5
SCALE IN INCHES
0
1
2
3
4
6
7
8
9
10
11
12
13
14
15
16
17

CHARACTERISTIC ARTIFACTS FROM RAS

Figure 7

1-4. Type III Points.
5. Crude Triangular Point.
6-9. Cord Marked Potsherds With Typical Designs.
10-11. Crude to Medium Gouges.
12 Bunt Variety Scraper With Some Type II Characteristics (Pattern and Edge Smoothing)
13. Projectile Point - Type I Technique, Modified Type II Pattern.
14. Crude Willow-Leaf Shaped Knife.
15-16 Type I Projectile Points.
17. Modified Type II Projectile Point.

Chipped Stone

1.	Large chert spall with secondary flaking around edge	1
2.	End or snub-nosed scrapers	2
3.	Crude willow-leaf shaped knives (?) of chert- 75 to 97 mm. in length	4
4.	Crude chert blanks- 92 to 120 mm. in length, width- 57 to 72 mm.	6
5.	Chert gouges, crude to medium in workmanship- 70 to 130 mm. in length. (Average length- 89 mm.)	27
6.	Small scraper-like object of black translucent material. (not obsidian) One surface flat but slightly concave, all four edges beveled- 22 x 17 mm	1
7.	Crude perforators with irregular bases- 47 to 70 mm. in length. (One with triangular cross-section)	7
8.	Bunt variety scrapers. Notches are modified Narrow Notch Type. All are barbed and two have edge smoothing at base- 50 to 60 mm. in length	3
9.	Knife with greatest width nearer point than base. (Type II)	1
10.	Medium-sized drills (broken), one with oval base, one with Shank Type base	2

Military And Hunting Complex

1. The large projectile points are mostly of Type I although a small percentage are of Type II. The Type II points are of good workmanship but not of the excellence sometimes attained. Classified as to outline the larger points are as follows:

Round Notch Type 1C-1, 2A-4, 2B-1	Total- 6
Narrow Notch Type 2A, B1-1, 2B-1, 2C-1	" 3
Question Mark Type 1A-2, 1B-2, 1C-2	" 6
Stem Type 1C-1, 2C, B1-1, 2D-1, 2AC-1, 3A-1	" 5
Shank Type	" 3
Shank Type Barbed 1C-1, 11A-3, 121A-1, 121C, Es-1, 2 or 21C, Es-1, 31A-1, 36 or 37A, B1-1, 36B-1, 3421A-1, 3421B-1, (?) B1-1, Miscellaneous-2	" 15
Fishtail Type 11B, Es-1	" 1
Crude Triangular	" 2

2. Small notched points of Type III, crude to medium in workmanship- 17 to 34 mm. in length:

Round Notch Type	26
Question Mark Type	34
Shank Type Barbed	16

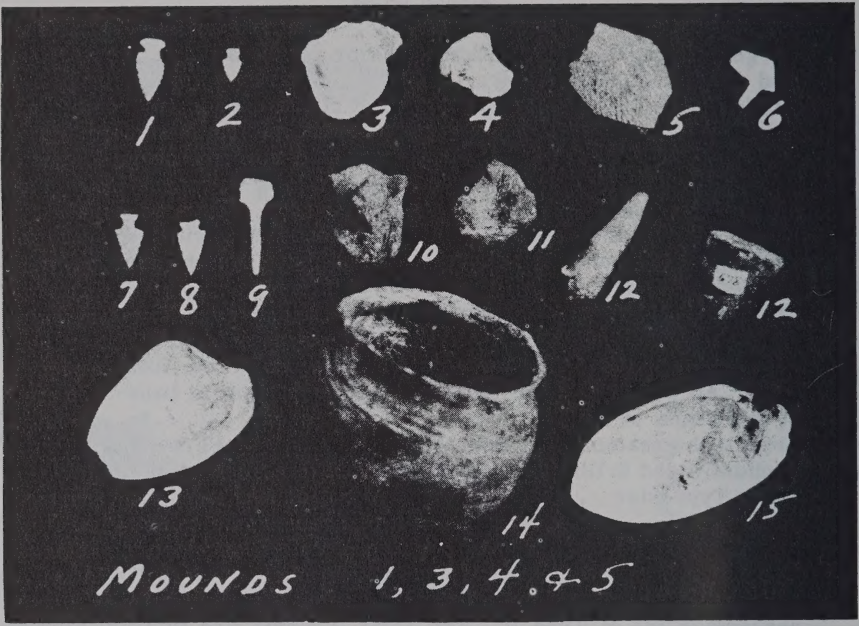

1
2
3
4
5
6
7
8
9
10
11
12
12
13
14
15
MOUNDS 1, 3, 4 & 5

PLATE XI

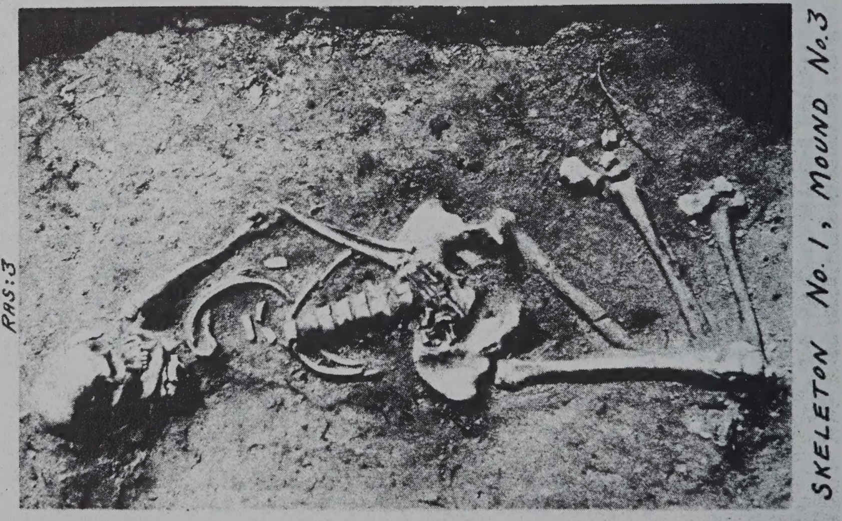

RAS:3
SKELETON No. 1, MOUND No. 3

PLATE XII

3. Small, crude, triangular or leaf-shaped points - 25 to 38 mm. in length:

Total number observed 18

Pottery Complex

COLOR - Tan to reddish-brown with smoke-blackened portions. Some sherds are black on both sides, but a typical sherd is reddish-brown on the exterior surface and smoke-blackened on the inner surface.

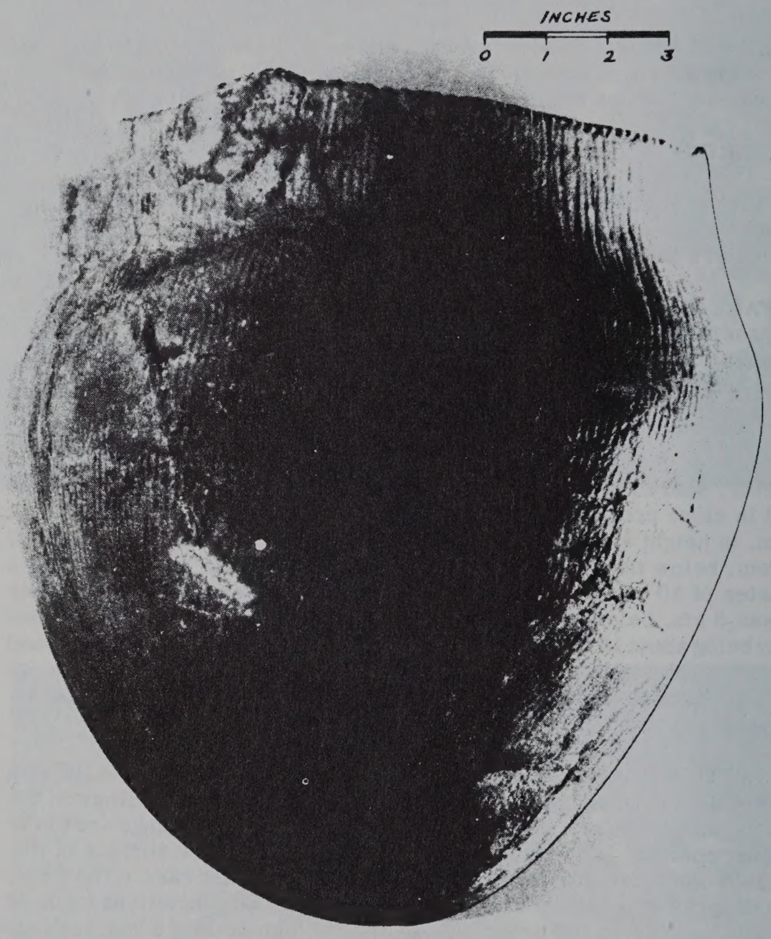
TEMPERING - Grit.

THICKNESS - Four to thirteen millimeters. The thicker sherds apparently represent basal portions. Rim sherds seldom exceed four millimeters in thickness.

SURFACE TREATMENT - It seems reasonable to assume that practically all vessels were cord-roughened. However, some of the sherds are so badly weathered that the roughening must be classified as "Unintelligible". On the thicker basal portions the cord marks play out, perhaps partly due to wear.

SHAPE - Most sherds are too small to indicate the shape of the vessel. However, sherds representing about one-third of a large vessel were found in close proximity and were carefully restored. This vessel is 37 cm. in height and its greatest diameter is 34 cm. at a distance of 135 mm. below the lip. From this greatest diameter it draws in to a diameter of 30 cm. at the lip. The rim is almost vertical for a distance of about 5 cm. below the lip. The edge is scalloped, the depth of the concavity being about 18 mm. There are four or more of these scallops around the edge. The base is conoidal. Wall thickness varies from 4 mm. at the lip to 12 mm. at the base. Judging from over three hundred sherds, this vessel seems typical of the pottery from this site.

DECORATION - Virtually all rim sherds are decorated near the lip with the so-called cylinder or cord-wrapped cylinder notchings, either on the outer or inner surface. The cord-wrapped cylinder notchings are by far the most common and occurrence is usually on the outer surface of the lip. Two other decorative traits have been noted but are rare. The first, punctating, is of a rather delicate nature with small punctations forming a design, usually on the collar just below the high point of a rim scallop. Bird track and V-shaped designs have been observed as well as others of less certain identity. Often the resulting boss on the inside of the vessel is roughly smoothed over. In one instance the punctating was from the inside for the purpose of forming a raised decoration on the outside. In this case the punctations were filled, leaving the inside smooth. The other decorative trait is either dentate stamping or dentate rouletting which usually occurs as a series of horizontal parallel lines at the base of the collar near the point of greatest constriction. The lines are continuous, extending entirely around the vessel and are made up of rather small vertical dashes, quite close together. They seem to be much of the same nature as the notchings at the rim. A similar impression can be produced by rouletting with a cord-wrapped wheel. It is interesting to note that the rim notchings can be duplicated with the same implement.


INCHES
0
1
2
3

RAS

PLATE XIII

FIREPIT SHERDS - During the spring and summer of 1941, numerous heavy rains cut deep ditches through the cornfield that covers RAS:V3, exposing several fire or cooking pits. Excavations revealed many sherds of pottery, some of which were heavily coated with charred material. Intermixed with the pottery were pieces of burned limestone, sandstone, and shale but no bone, antler, or shell was observed. Sherds from two of these firepits were analyzed separately but the tabulation of traits revealed no noticeable contrast with surface sherds.

ANALYSIS OF ARTIFACTS FROM MOUNDS

Ceremonial Complex

1.	Elbow variety clay pipe with no decoration. (Mound 4)	1
2.	Red hematite paint stones with evidence of much grinding. (Mound 4)	2
3.	River shells near skeletons. (Mounds 3, 4, 5)	Many

Economic And Artistic Complex

1.	Broken pieces of sandstone with angular surfaces. (Mound 4)	1
2.	Fine chert perforator without notches, length 48 mm. (Mound 4)	1
3.	Small chert perforator (?) broken. (Surface of Mound 3) This artifact appears to be almost identical to an unbroken specimen from MA1 which is located about ten miles upstream. The specimen from MA1 is described as follows: "Triangle with drill-like prong projecting from one side, the projection being parallel to a line extended from the base of the triangle. Has the appearance of a hafted celt. May be unusual form of perforator."	1

Military And Hunting Complex

1.	Small points of Type III- 18 to 33 mm. in length, identical to those from village site. (Mound 1, 4, 5).	5

Pottery Complex

1.	Reddish sherds identical to those from village site (Mound 3).	2
2.	Small enlongated globular pot with conoidal base. Grit tempered and cord-roughened. River shell with smoothed edges inside pot. Height of pot 105 mm., diameter at lip 90 mm. (Mound 5)	1

CONCLUSIONS CONCERNING SITE RAS

RAS appears to be a pure site and artifacts recovered almost invariably match others previously found. This is especially true of projectile points, pottery, and gouges. The fruits of an hour's search in the field often can be readily identified as having come from the site by a person familiar with it.

Chronologically it would seem that RAS should be placed between MA1 and MA2 since it has traits in common with each of them. Location,

POTTERY TABULATION CHART

RAS:V2 & V3 - Surface

Sherds	Number observed	1		**2		*3		4		5		6		7		8		9	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Rim	24	19	79	5	21					13	54	4	17	4	17	2	8	1	4
Body	199	100	50	54	27	24	12	21	11							1	½	1	½

RAS:V3 - Firepit No.1

Sherds	Number observed	1		**2		*3		4		5		6		7		8		9	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Rim	6	5	83	1	16					5	83	1	16					2	33
Body	60	34	57	14	23	6	10	6	10							2	3	2	3

RAS:V3 - Firepit No.2

Sherds	Number observed	1		**2		*3		4		5		6		7		8		9	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Rim	12	6	50	6	50					11	92			1	8	1	8	2	17
Body	74	49	66	12	16	8	11	5	7										

Pottery Traits

1. Cord roughened.
2. Unintelligible roughening.
3. Surface free from markings.
4. Surface eroded, finish undeterminable.
5. Lip notched with cord-wrapped cylinder.
6. Lip notched with other than cord-wrapped cylinder.
7. No decoration.
8. Punctate.(Design made up of small punctations.
9. Rouletted (dentate) or dentate stamped.

* Majority probably basal portions.
** Probably indistinct cord marks.

prevalence of small points, and occurrence of Type II points, link it with MA1 while prevalence of pottery, firepits, and burial traits, point toward a kinship with MA2. Certainly it is not far removed from either of these sites for all three have many traits in common. All produce gouges, Type I and Type III projectile points, Type I pottery, end scrapers, grooved axes, and celts.

The profusion of pottery and the prevalence of the gouge, which was probably an agricultural implement, would lead one to believe that RAS was a rather well established village over a number of years.

HOLLIDAY PETROGLYPH SITE MN1

MN1 is located near Holliday, in Monroe County, Missouri, in the SE 1/4 of Section 34, Twp. 55N., R.11W. The site is marked by petroglyphs, which are carved into the walls of a sandstone canyon in several of its many natural cliff shelters. Through this canyon flows a small creek known as Rockey Branch, which empties into Middle Branch of Salt River at a distance of about one mile from MN1. The site has been known for many years but was first visited by several members of the Marion-Ralls Archaeological Society in the early spring of 1941. In July of the same year a field trip was undertaken with a large number of members present. The group was impressed by the number of carvings, their good preservation, and skill of execution. It was considered a promising field for correlating petroglyphs with other cultural material because of its isolated location, upon the assumption that a site so located was less likely to consist of multiple components than one occurring directly on a major watercourse.

Permission for excavating a test trench was secured from the owner, Mr. A. G. Blakey, of Paris, Missouri, but work on the project was deferred until cooler weather. During the summer months, however, several visits were made to the site for the purpose of taking photographs, making plaster casts, and mapping the grounds. On the occasion of these visits several surface finds were made in the creek bed and adjacent to the bluffs in the vicinity of the petroglyphs. These finds included several chert points, a gouge, a broken grooved axe, and several sherds of pottery. Visits to the site were pleasant and work progressed rapidly due to the cooperation of Mr. F. G. Menefee, who resided on the place.

Features of the site include the petroglyphs MN:1, MN1:2, MN1:3, MN1:4, and test trenches MN1:5 and MN1:6. There follows a description of each of these features:

GROUP I. - It is questionable whether MN1:1 and MN1:2 should be considered as separate units or combined as a single group. The divisions are mainly for convenience of handling, since the carvings are somewhat continuous across the face of the cliff. MN1:1 is unquestionably the most outstanding of the groups on the west wall. It centers around a small human figure (A), with hands (B and C) raised. The hands are about natural size and are so out of proportion to the body that their connection with it might be easily overlooked. The hand (B) is true to form but the other (C) consists of a deep circle for a palm from which radiate the five

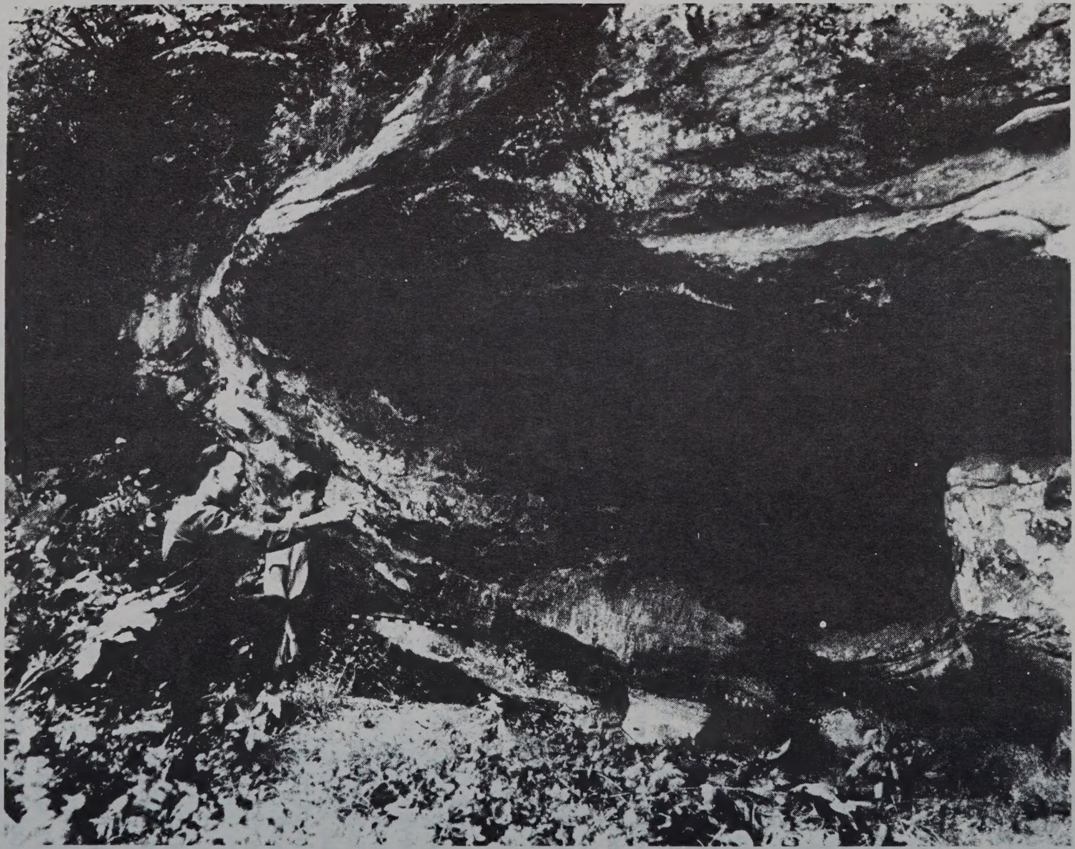


PLATE XIV (General View of MN1:1 and MN1:2) fingers. It has been suggested that this not only represents a hand but a circular object held in the hand as well. When the site was first visited, both hands were colored a brick-red, no doubt with the natural red ocher which is plentiful in the nearby stream. The coloring may be recent but it is possible that all carvings may have been colored in at one time. The Indians could not have failed to notice the presence of this natural pigment and its use would have greatly enhanced the petroglyphs. Cutting through the legs of the human figure (A) is a snake (G) with about three fourths of its body to the left of the human figure. The snake extends forty-five inches along the cliff but is in reality much longer when the numerous curves are taken into consideration. Just above (G) is another snake (I) of about the same length but with body less curved. The body is much thicker and a deep eye is drilled in the head. This snake does not cut through the body of the human figure (A) but is immediately to the left of it with the head quite close to the human figure. Above the snake and to the left of the hand (B) is a bird track (J) and a design (H) which has been described as lemon-like. Near the tail of the snake (G) are two thunderbirds (K and L). Another thunderbird (E) may be seen just to the right of the hand (C). It is interesting to note that all of these thunderbirds are different and that many varieties of them are represented at MN1. Above the thunderbird (E) is a turtle (D) of conventional design. Two representations, (F) and (M) are indistinct and of questionable identity. (F), which is probably an animal or bird, is close to the right side of the human (A) and is cut through by the snake (G). (M) is probably a bird track. Three other carvings which are mutilated by a fracture are located to the right of the petroglyphs just described and are on the center-line of the group. (N) may represent an arrowhead, (O) a hand, and (P) is an animal. Two indistinct hand prints (Q and R) are located about thirteen inches to the right of the animal (P). A spiral (S), the only such representation on the site, is to be seen nineteen inches above the tail of the animal (P). Close inspection reveals that some of the carvings just to the right of the hand (C) overlie older petroglyphs. At least one older carving, probably representing an animal, may be discerned. All carvings in MN1:1 are dug out but parts of the animal (P) are outlined deeper. The greatest height of the petroglyphs from the present ground level is thirty-two inches and some parts of the group are as close as fifteen inches.

GROUP II. - MN1:2 is located just to the right of MN1:1, being separated from it by only nineteen inches, the distance from MN1:1P to MN1:2A. With the exception of MN1:2A, this group is located within a large natural niche. The central figures of the group are two animals (E and F) immediately below a crescent moon (C) from the upper horn of which hangs a fish (D). The tail of the fish is connected with the moon and the fish hangs obliquely at an angle of about forty-five degrees. The heads of the animals (E and F) are quite close and their justaposition gives rise to a question of whether the figure (F) has a rhinoceros-like horn on the snout or whether this is the ear of the other animal. A close inspection gives indication that the connection is with (F) instead of (E). In no other way, however, does (F) favor the outline of a rhinoceros, in fact the body is more bird or duck-like in appearance. The animal (E) would seem to represent a bear. Numerous weather scars in the vicinity of both of these animals make it difficult to speculate with any degree of certainty upon

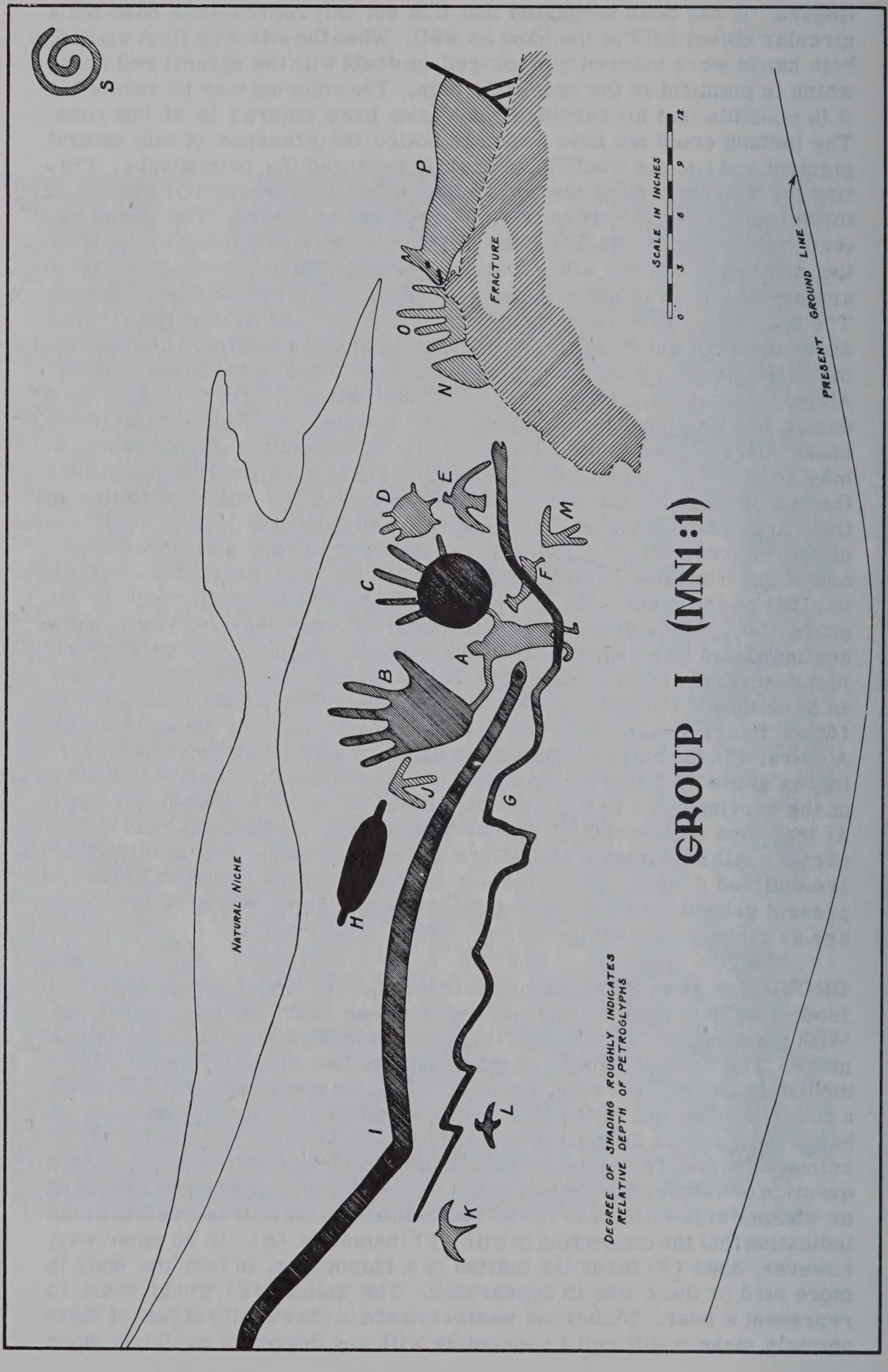

GROUP I (MN1:1)
NATURAL NICHE
DEGREE OF SHADING ROUGHLY INDICATES RELATIVE DEPTH OF PETROGLYPHS
FRACTURE
SCALE IN INCHES
0
3
6
9
12
PRESENT GROUND LINE
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
S

Figure 8

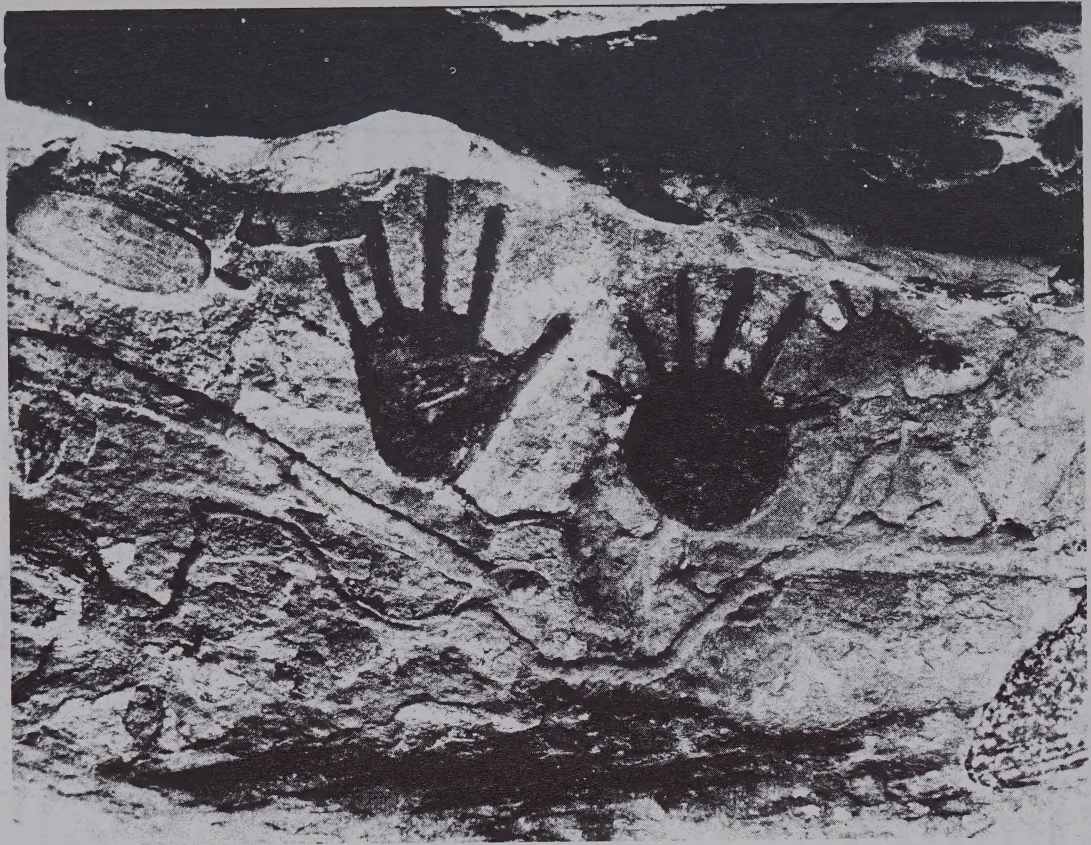


PLATE XV (Section of MN1:1)

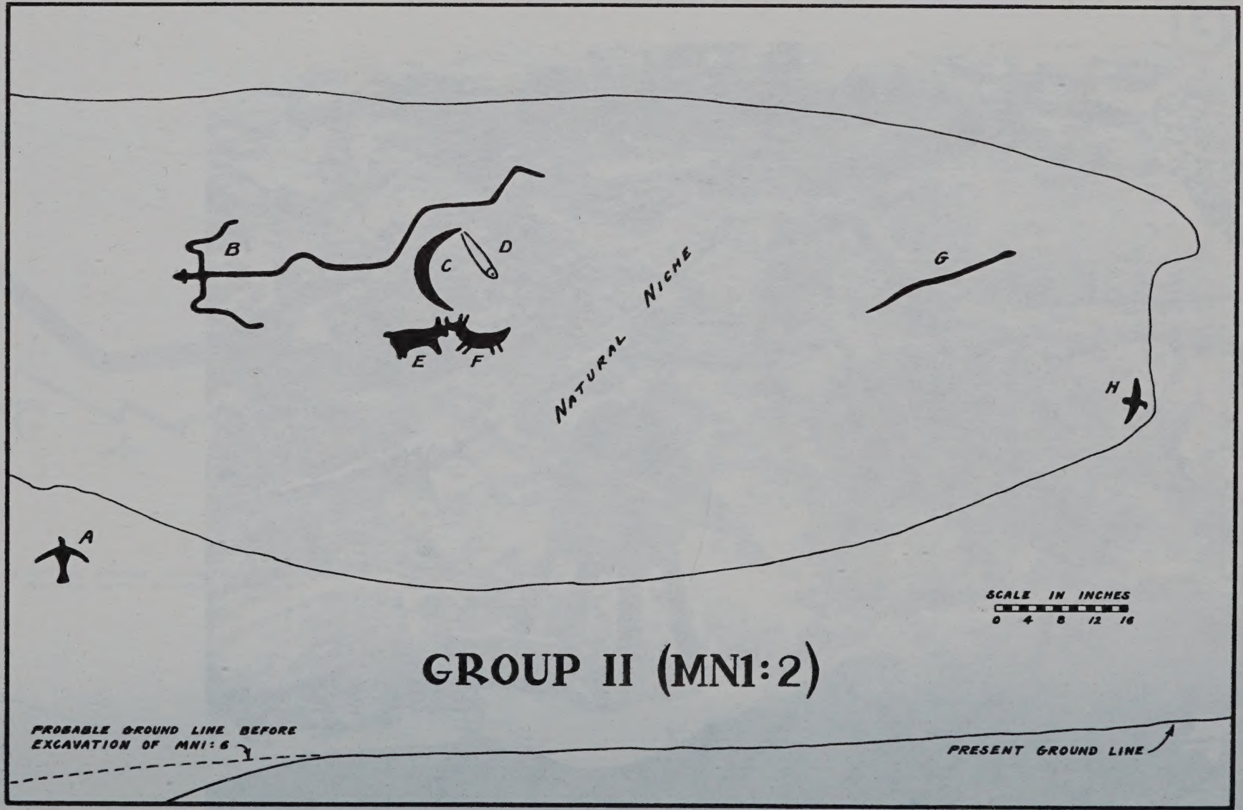

B
C
D
E
F
NATURAL NICHE
G
H
A
SCALE IN INCHES
0 4 8 12 16
GROUP II (MN1:2)
PROBABLE GROUND LINE BEFORE EXCAVATION OF MN1:6
PRESENT GROUND LINE

Figure 9

what they may represent. To the left of the moon (C) is a design (B) that may represent a bow with arrow in place. If representing such, however, the length of the arrow is exaggerated for it greatly exceeds that of the bow. It has numerous curves which allow it to carry around and above (C and D). It has been suggested that this figure (B) may be symbolical of a poisoned arrow, since it seems to be a combination of arrow and snake. The shaft is straight for a length equal to the proper length of an arrow but from there on it is curved and becomes more snake-like in appearance. A snake (G) about nineteen inches in length is located to the right of the moon (C) with its tail on a center line with the lower horn and at a distance of fifty inches from it. The body of the snake is almost straight and forms an angle of about thirty degrees with the horizontal, the head being seven inches higher than the tip of the tail. Two thunderbirds (A and H) complete the group. (H) is located below and to the right of the snake (G) at a point where the floor of the niche rises to meet the side. The other thunderbird (A) is at the extreme left of the group, just below the niche and thirty-two inches below the point (arrowhead?) of the design (B). The lower horn of the crescent is fifty-four inches from ground level and the thunderbird (A) is only 35 inches above the present ground line.

GROUP III. - MN1:3 is located just to the right of MN1:2. It barely warrants classification as a group, since it consists of only two thunderbirds, MN1:3A and MN1:3B. MN1:3A is fifty-six inches from MN1:2H and twenty-five inches above ground level. It is a well executed example of the swallow-tail type of thunderbird and is deeply carved. MN1:3B is forty inches to the right of MN1:3A and sixteen inches above ground level. It probably represents a conventionalized thunderbird. Both of these figures may be seen in Figure 10.

GROUP IV. - MN1:4 is the only group of petroglyphs located on the east wall of the canyon. Its location under an overhanging ledge may account for the good state of preservation. If it was the intention of the designer to depict any related thought in this group it appears that it must have been one concerning the chase. At the extreme right are two kneeling human figures (D and E) holding what appear to be bows. Both bows are pointed in the direction of the game and one bow is drawn. The animals are a finely executed deer (B) and another of less certain identity (F). There are three fish (A, G, and J), the most skillfully executed of the three being (A), which is the largest of the group. The fish (A) has an extra eye and a gill properly represented, while (G and J) are devoid of eyes and have gills reversed. All have fins represented by a series of spur-like, parallel lines. Between the hunters and the game is a double headed eagle or thunderbird (C) and near the center of the group of game is another thunderbird (H). An undetermined carving (I), which may represent a bird track, appears below the thunderbird (H). The fish are outlined, while all other representations are dug out. There are several fractures on the wall, one near (E), which has mutilated the figures, and another immediately below (B). It is possible that originally there were other figures in this group. The greatest height of the petroglyphs from the present ground level is thirty-four inches, while the lower of the group are as close as thirteen inches. Those on the upper level evidence much more skill than do the lower figures.

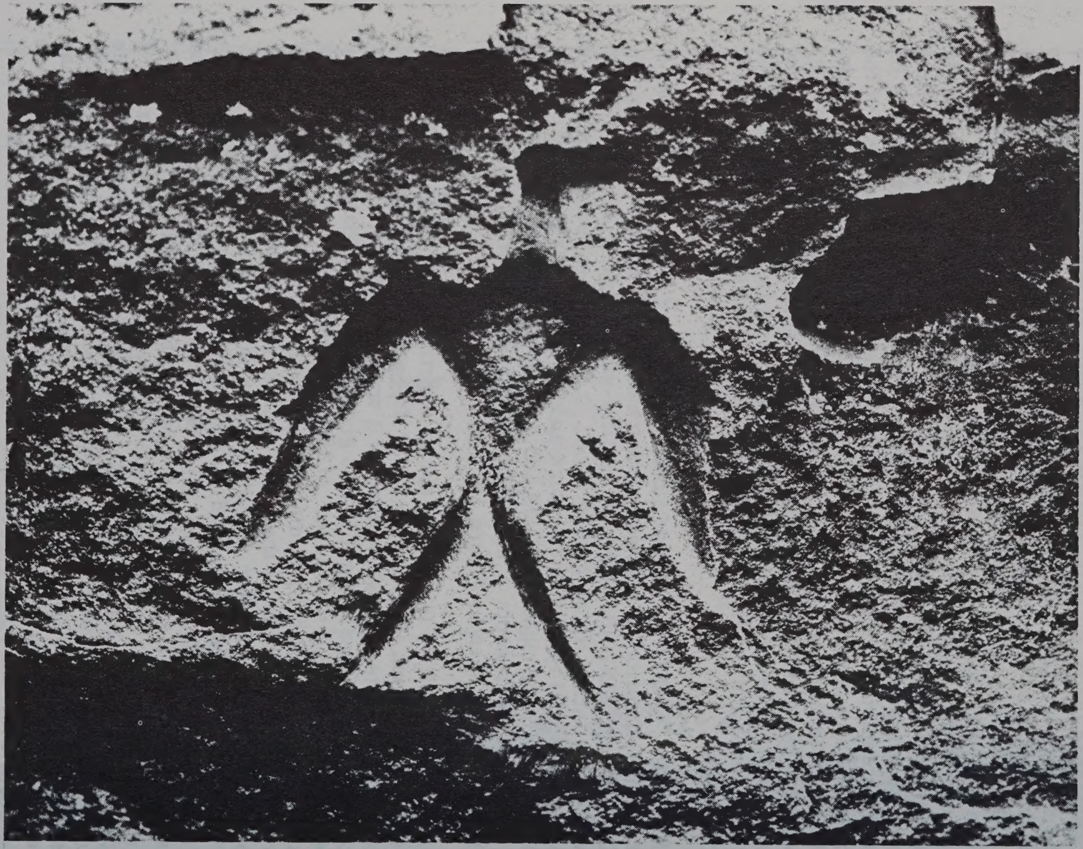


PLATE XVI (Figure A of MN1:3)

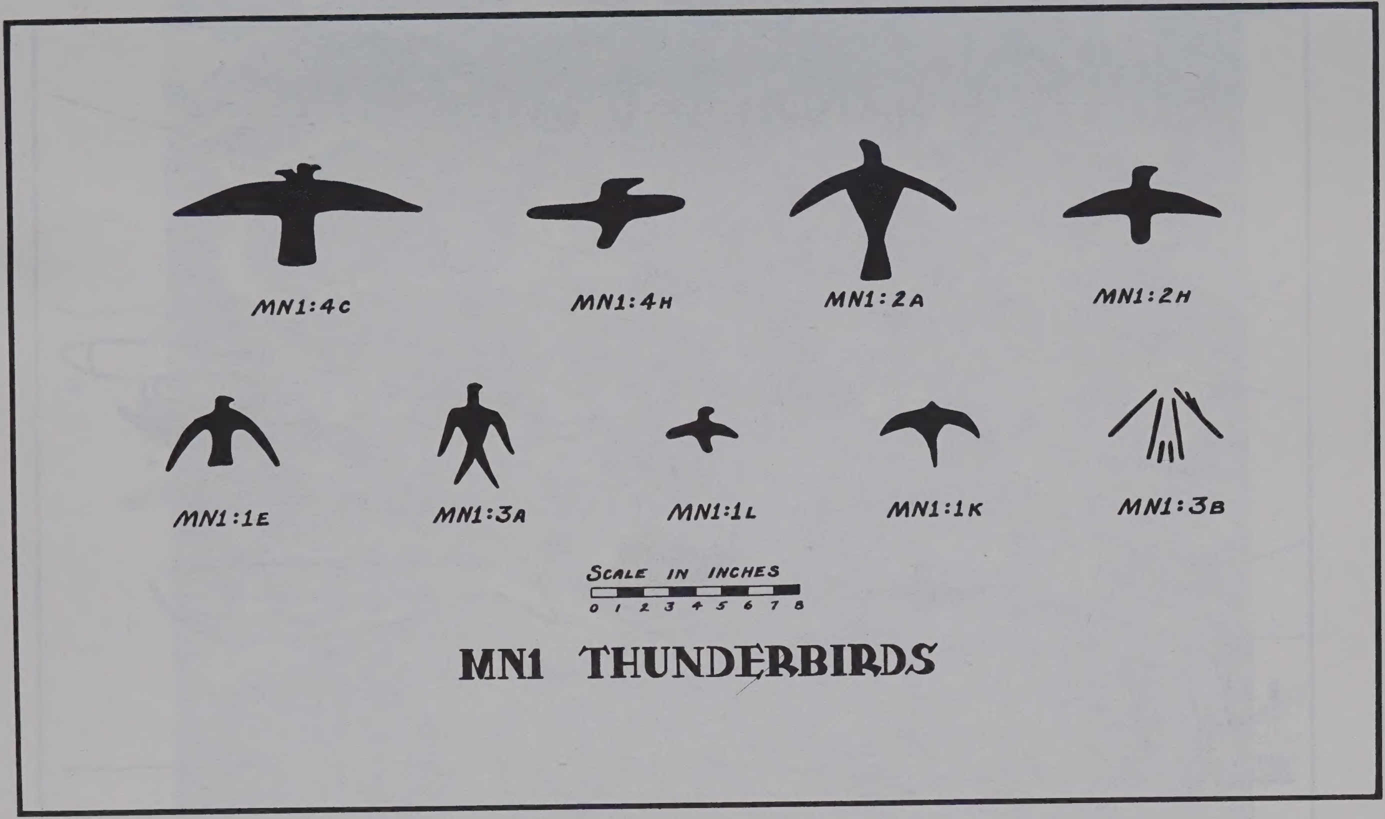
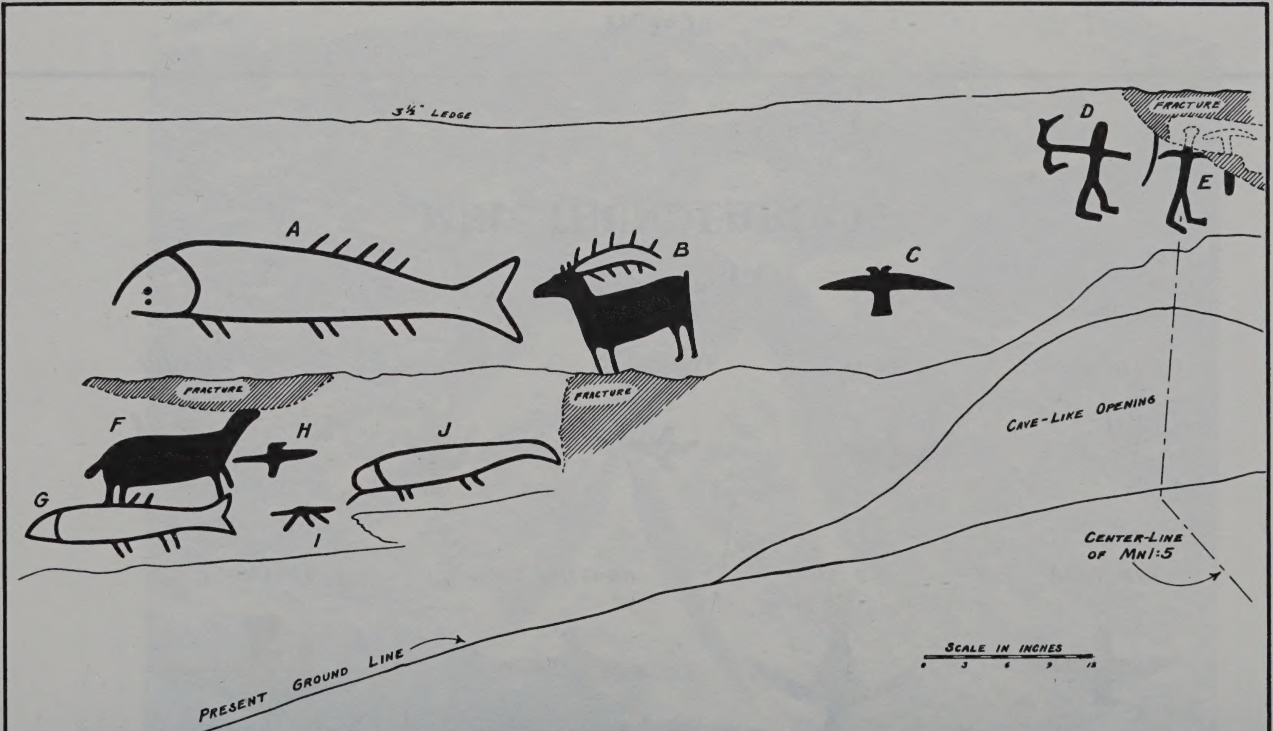

MN1:4C
MN1:4H
MN1:2A
MN1:2H
MN1:1E
MN1:3A
MN1:1L
MN1:1K
MN1:3B
SCALE IN INCHES
0 1 2 3 4 5 6 7 8
MN1 THUNDERBIRDS

Figure 10


3½" LEDGE
FRACTURE
A
B
C
D
E
FRACTURE
FRACTURE
F
G
H
I
J
CAVE-LIKE OPENING
CENTER-LINE OF MN1:5
SCALE IN INCHES
0
3
6
9
12
PRESENT GROUND LINE

GROUP IV (MN1:4)

Figure 11

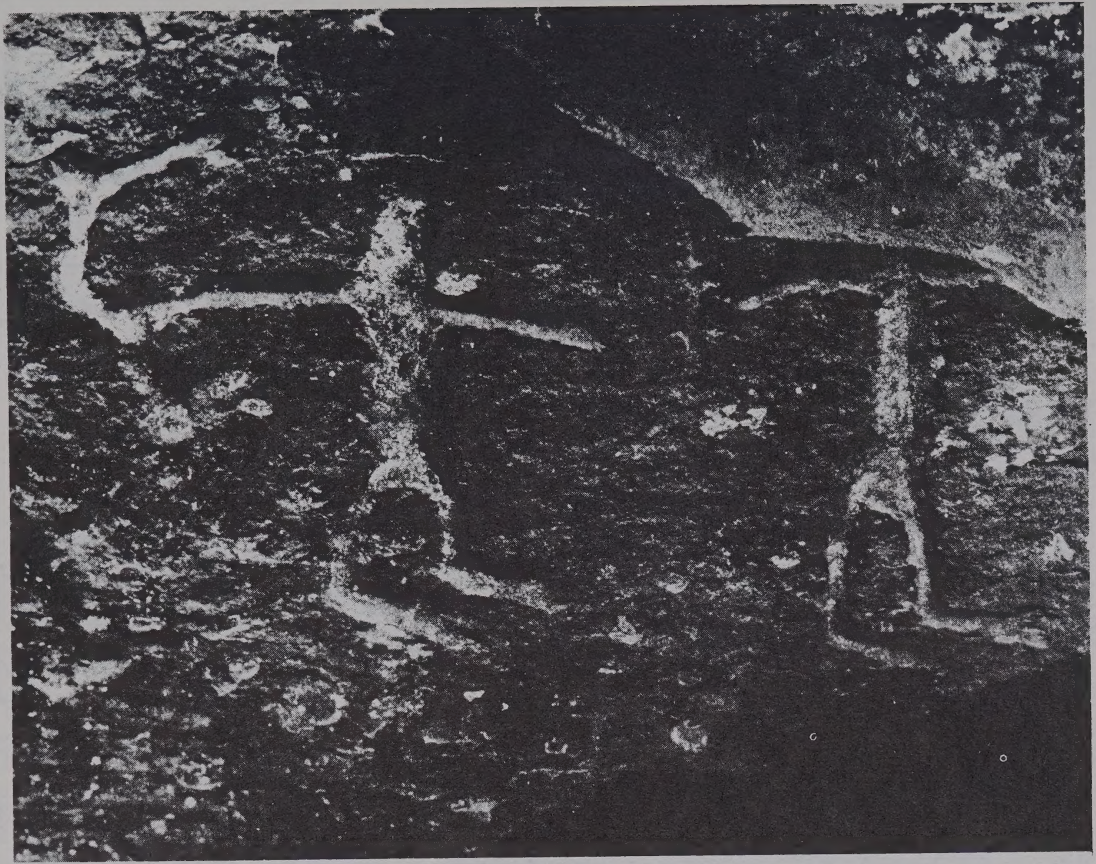


PLATE XVII (Figures D and E of MN1:4)

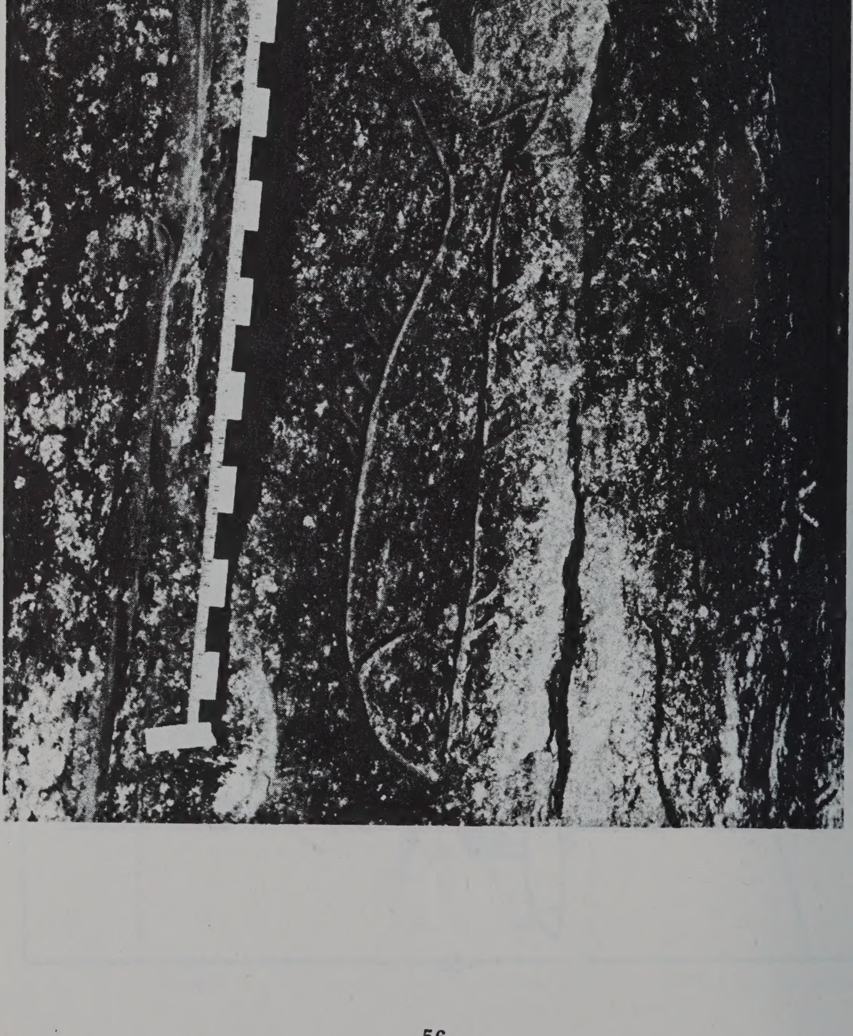


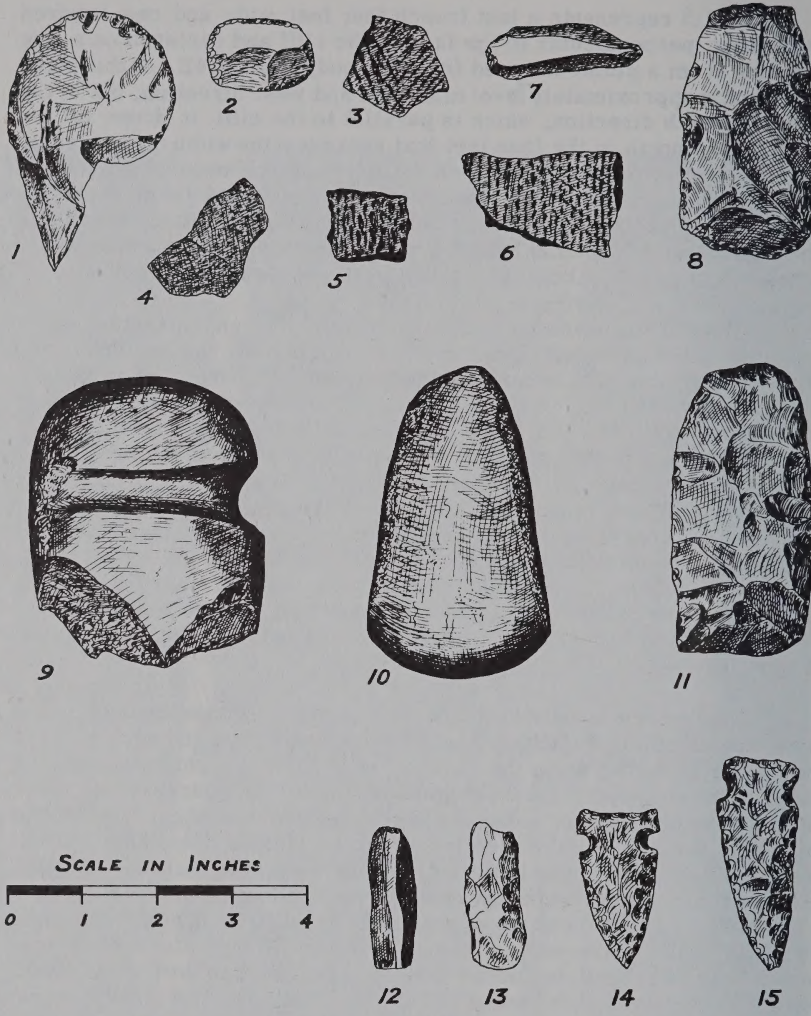
PLATE XVIII (Section of MN1:4)

MN1:5 represents a test trench four feet wide and one hundred inches long, perpendicular to the face of the cliff and centered on a line extending from a plumb dropped from the body of MN1:4E. At this place the ground is approximately level in an east and west direction; but in the north and south direction, which is parallel to the cliff, it drops off ten inches to the north in the four feet that represent the width of the trench. The trench was first made level on the floor, which necessitated a cut of ten inches along the south side. Material recovered from earth removed in this process was recorded as occurring in Block 1 and was labeled MN1:5_1. Blocks 2, 3, and 4 were excavated, each being twelve inches in thickness. About two inches in Block 5 was also removed.

Block 1 was made up almost entirely of sand and sandstone slabs that had fallen from the overhanging cliff in years past. Among these was discovered a slab that contained the remainder of the figure (E), and fitted nicely on the wall of the cliff. Three slivers of leg bones of deer (Odocoileus), two of which were charred, were recovered near the east end of the trench in the mouth of a cave-like opening at the base of the cliff. At this place, also, the most interesting find was made - an artifact which may have been used in the execution of the carvings. This is a rounded, scraper-like object with a pointed protuberance and fashioned from a large chert spall with secondary flaking around the entire edge. The general outline is not unlike that of a draftsman's figure nine. The circular portion of this object has a diameter of fifty-five millimeters and the pointed protuberance, which is tangent to the periphery, extends forty millimeters.

The second block was found to contain a smaller proportion of sandstone slabs, especially toward the bottom. Near the center of the trench, thirty inches from the cliff and at a depth of eight inches in this block (thirteen inches from the original surface) was a darker area from which was excavated fire reddened sandstone and much charred wood. This depth was the most productive area and yielded nine chert spalls, three of which were of the long variety that may have served as spall knives. Three other blocks of chert were found with surfaces chipped or broken by fire. Almost all of the chert was dark in color although two of the spalls were white. Two small sherds of pottery were removed; both were grit tempered and at least one was cord roughened. The cord roughened sherd was hard and its finish almost glossy, while the other was softer with unintelligible roughening. One deer bone was found (Medial phalanx), also a portion of a charred acorn cap. Within the crevice at the base of the cliff were found two slivers of bone and a white chert spall.

As greater depths were reached the earth became more clay-like although its bulk included a great deal of sand and smaller pieces of sandstone. No artifacts were recovered from Block 3, although one soft river shell and numerous pieces of charcoal were found. At a depth of eight inches in Block 4 at a point near the center of the pit, solid sandstone was encountered. Just above the stone at this point were a great many pieces of charcoal and evidence of fire. The stone sloped off to the west, allowing the excavation of about two inches of Block 5 in the west end of the trench. Throughout the trench the excavation was carried to the solid rock but no cultural material was obtained.


1
2
3
4
5
6
7
8
9
10
11
SCALE IN INCHES
0
1
2
3
4
12
13
14
15

ARTIFACTS FROM MN1

FIGURE 12

1. Scraper or Graving Tool from MN1:5.
2. End Scraper from MN1:6.
3. Potsherd from MN1:6.
4. Potsherd from MN1:5.
5. Rim Sherd from MN1:6.
6. Potsherd from MN1:6
7. Flake or Flake Knife from MN1:5.
8. Gouge from MN1:5.

9-15. Artifacts from Creek Bed Adjacent to and Below MN1.

In filling the trench two objects were discovered which, unfortunately, were overlooked at the time of the excavation. One is a chert gouge, eighty-five by forty-eight millimeters, with a trace of polish near the beveled end. Workmanship is average for such pieces. The other object is a small, grit tempered, cord marked sherd of pottery. It is hard in texture and has the almost glossy finish typical of certain sherds from this site; the thickness is four millimeters and color is grayish brown.

MN1:6 is the title assigned to an irregular pit approximately four feet wide, three feet deep, and seven feet long, perpendicular to the cliff below MN1:1A. It was dug in years past by relic or treasure seekers. The earth that had been removed in this process was carefully watched as it was replaced in the pit, and considerable material was obtained. Since the levels wherein these materials occurred are unknown, the articles are all grouped together and described below:

POTTERY.- Eighteen sherds were removed, all of which are grit tempered. All except two are cord-marked; these two sherds are worn on the outer surface and probably represent basal sections which seldom show cord imprints. Only one rim sherd was recovered. Cord marks cover its entire outer surface; but, otherwise, it is undecorated except for slight, crude notching on the interior of the rim. This sherd, as do the body sherds, indicates that the vessels were quite large, with diameters perhaps as great as thirty-six centimeters. Thickness of sherds ranges from four to eight millimeters and color from gray and tan to reddish-brown, with varying degrees of blackness. The inside surface is usually darker in color than the outside. Most sherds are well preserved and rather hard, but four of them are unusually hard and have an almost glossy finish.

SHELL - Several portions of unworked river shells were recovered. They are quite firm and do not seem to indicate great age.

ROUGH STONE - One quartzite pebble showing use as a hammer-stone and one irregular piece of gray chert.

CHIPPED STONE - One irregular piece of chipped gray chert, one large flake of brown chert, and one small end scraper of brownish gray chert.

BONE - Deer (Odocoileus). Proximal phalanx, 1.

MITCHELL PETROGLYPH SITE RN1

RN1 is a petroglyph site located in Randolph County, Missouri, in the NE 1/4 of the NW 1/4 of Section 25. Township 55, Range 13, on property belonging to T. C. Mitchell. The site is located in a valley through which flows a small stream that empties into Mud Creek about one-fourth mile to the north east. The nearest large body of water is Middle Fork of Salt River a little less than five miles distant. The site has been known to local residents for many years as evidenced by the numerous names and dates carved nearby.

The petroglyphs (RN1:1) are centered in and about a cove which is located in a sandstone outcropping on the northwest side of the valley.

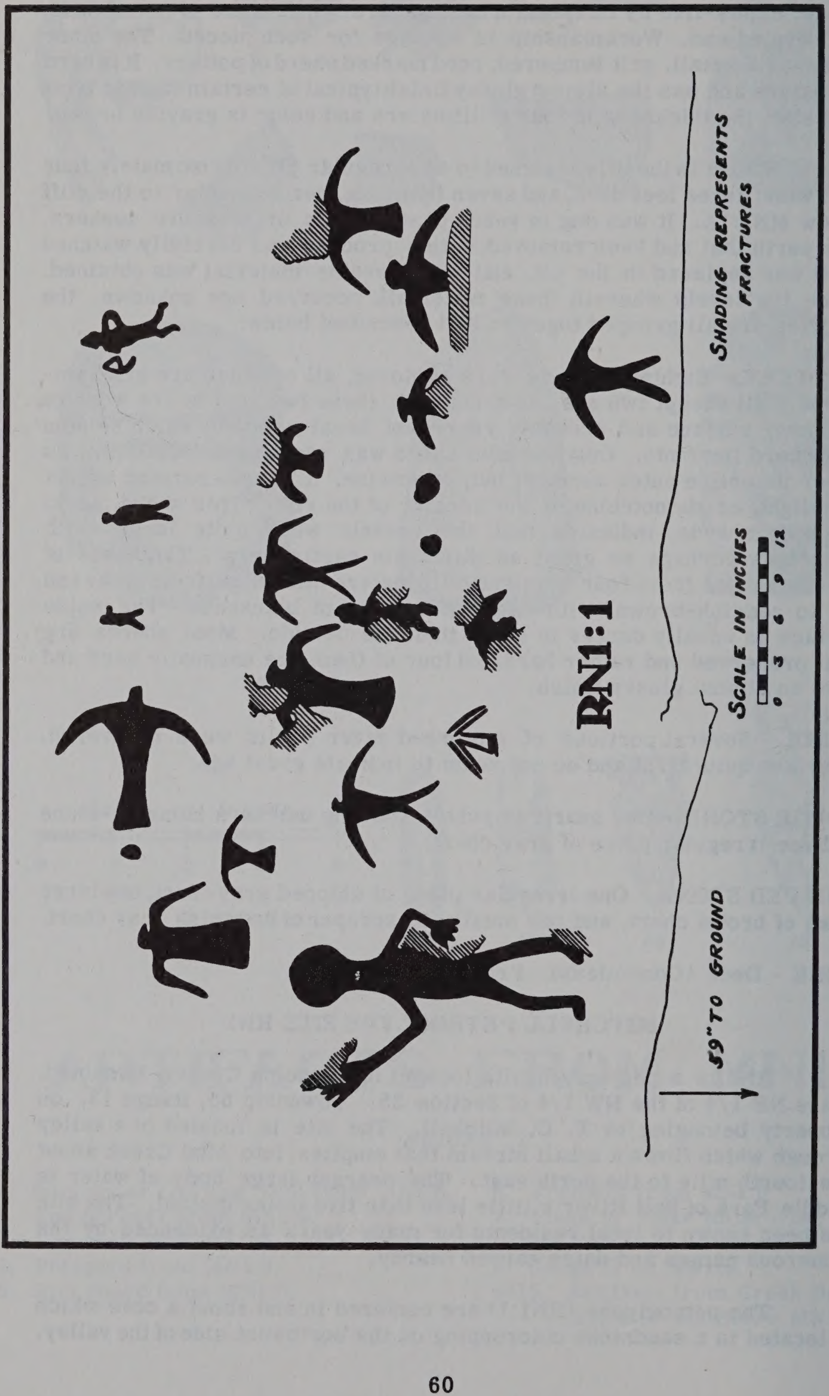

RN1:1
SHADING REPRESENTS FRACTURES
SCALE IN INCHES
0 3 6 9 12
59" TO GROUND

Figure 13

In many respects the petroglyphs are similar to those at MN1, fifteen miles distant; however, thunderbird carvings are much more prevalent than at the Monroe County site. In all, there are more than twenty-eight thunderbirds of various designs, many of them are exquisitely carved. Among them are five which perhaps should be classed as conventionalized thunderbirds.

Just to the northeast of the cove at a height of between sixty-three and one hundred two inches is a concentration of figures. Depicted here are thirteen thunderbirds and perhaps five humans. The human figure at the extreme left is rather large, being twenty-one inches high. Another human figure is located among the thunderbirds near the center of the group and three others are to be seen at the top right. The one at the extreme right appears to be holding a bow. All of the human figures are crudely executed in comparison to the thunderbirds and their outline is further distorted by numerous weather scars.

Other representations on the site consist of bird tracks, round or oval pits, and crosses (Greek type). There are five bird tracks, one pair and one group of three. The crosses are indistinct and mutilated, but there seems to be at least two of them. Near the back of the cove are two figures quite close together. One is a conventionalized thunderbird and the other has the semblance of a short-necked dinasaur. These figures are executed much in the manner of the other petroglyphs but have a rather fresh appearance and are most likely of recent origin. It is, of course, possible that other of the carvings are of recent origin or that alterations may have occurred in modern times, for after a few years such would be difficult to detect. However, the style and general appearance of the petroglyphs would lead us to believe that the great majority of them are genuine.

RN1:2 is a test trench four feet wide and eight feet long, centered on a line extending in a southeast direction (approximately perpendicular to the cliff) from a point on the floor of the main cove directly under an oval pit located near the center of the back wall. The trench was laid out in two blocks each four feet square; Block 2 abutting the back wall of the cove and Block 1 lying just to the southeast. All of the trench was well within the shelter of the cove.

Excavation was begun in Block 1 (RN1:2_1) along the side nearest the opening of the cove. A vertical cut was made to a depth of twenty inches where solid sandstone was encountered. The first two inches consisted of a dusty surface soil of light color and was entirely devoid of any material whatsoever. Under this was a definite charcoal line from which the dusty topsoil was easily pealed. Below this line to a depth of about ten inches was a great deal of charcoal and burned sandstone, although no clean-cut stratification was in evidence. Below the ten inch depth the soil became more moist until at a depth of twenty inches the earth removed was of the nature of wet gumbo. No material was recovered below the fourteen inch level, except two small sherds of grit-tempered pottery, one smooth and one cord-marked, together with a small fragment of bone. These were found resting on the solid rock at a depth of twenty inches, near the southeast line of Block 1.

As the excavation progressed toward the back of the shelter, it was found that the sandstone floor rose toward the surface until on the line between blocks one and two it was covered by only six inches of soil, charcoal, and small pieces of burned sandstone. At the opposite side of Block 2, adjacent to the back wall of the cove the solid rock lacked only a fraction of an inch of being exposed. No material was recovered from Block 2 and the great bulk of that found in Block 1 occurred in the charred area at depths of between five and fourteen inches. Materials consisted of river shells, bones, chert spalls, and nine small sherds of pottery (all body sherds).

Pottery is all grit-tempered, rather hard and well preserved, and varying in color from tan to reddish-brown with smoke blackened portions. Thickness is four to seven millimeters. Four of the sherds are cord-marked, three are smooth, one is rough, and the remaining piece is so eroded that the finish can not be determined. Depths were carefully recorded for each sherd recovered, but no trait could be assigned to any particular level. Cord-marked sherds were found at six, ten, fourteen, and twenty-inch levels, and smooth sherds at eight, twelve, and twenty inches.

Eleven spalls, mostly of dark colored chert, were removed from depths varying from two to fourteen inches. Five of these are of black chert, which is common on the surfaces in this vicinity. Of the six others, only one is white; the remainder being gray, red, or yellow.

Bones were plentiful and a number of different animals were represented. An analysis of bone material follows:

RNI:2_1 0 to 8" (19 bones)
  Deer (Odocoileus). Fragments of leg bones, 4; metacarpal, 1; metatarsal, 1; radius, 1; tibia, 1; scapula, 1; antler, 1; centrum of vertebra, 1; innominate, 1; scaphoid, 1.
  Raccoon (Procyon). Ribs, 2; mandible, 1.
  Striped skunk (Mephitis). Tibia, 1.
  Cottontail (Sylvilagus). Innominate, 1.
RNI:2_1 8 to 14" (19 bones)
  Deer (Odocoileus). Fragments of leg bones, 8; tibia, 2; calcaneum, 1; metatarsal, 1; distal phalanx, 1.
  Bison (Bison), or possibly domestic cow. Fragments of lumbar vertebra, 2.
  Raccoon (Procyon). Mandible, 1.
  Dog or small wolf (Canis). Humerus, 1.
  Turtle (?). Fragment of shell, 1.
  Unidentifiable. Fragment of leg bone, 1.
RNI:2_1 20" (1 bone)
  Deer (Odocoileus). Metacarpal, 1.

CONCLUSIONS - PETROGLYPH SITES MN1 AND RN1

Because of the fact that operations were confined to small test pits which yielded only a small amount of material, only conclusions of a most tentative nature can be formed.

A study of the test pit material together with that recovered on the nearby surface would indicate that only the Woodland is represented. While this does not prove that the petroglyphs were executed by these people, it is good evidence in that direction. The total complex does not exactly match that of any other site discussed in this writing; however, it may be described as typically Woodland. Sliver knives at MN1 suggest association with MA3 but all other material from both petroglyph sites is more like that from RAS. This is especially true of pottery which is quite unlike the thick variety from MA3.

It would not seem reasonable to assume that any great age is represented because over a long period of years the petroglyphs would no doubt be effaced by erosion. However, it must be remembered that the carvings are for the most part located in places of natural protection from the elements. Likewise, the shell and bone recovered from the test pits were located under the overhang of natural cliff shelters. With this in mind and because of the lack of white influence, either in the cultural material or in the carvings, it would seem a good guess that petroglyphs adorned the walls of the sandstone shelters at MN1 and RN1 before the first white settlers made their appearance.

The petroglyphs appear to have been made by a graving process, and not by the pecking method more commonly employed farther west. No close connection is suggested with the petroglyphs of the Southwest except that somewhat the same objects are depicted. What likenesses there are suggests Texas and New Mexico, rather than further north or west.

Concerning the meaning of the carvings, there is little to be said in spite of the many interpretations suggested. It is possible that each representation is symbolical in itself and that no connected thought was anticipated. On the other hand, because of the arrangement of some of the groups, especially at MN1, there is reason to speculate on the possibility that a broader meaning was intended.

One final conclusion relates to a habit of diet. Numerous split bones would indicate a practice of bone breaking for the procurement of marrow. This was especially noted at RN1.

CONCERNING THE RELATIVE AGE OF SITES

Lacking the more dependable stratigraphical evidence for determining the relative age of sites, efforts were directed toward solving the problem in another manner. It was noted that material from the surfaces of some village sites included shell and bone while that from others contained no perishable material. It was argued that, all things being equal, sites with no evidence of shell or bone should be older than those upon which such material was present but it was of course realized that preservative conditions might differ from site to site.

However, in the absence of a better starting point, village sites were carefully analyzed to determine whether those with similar perishable refuse contained other common traits. This analysis revealed that most sites which were free from perishable materials were definitely characterized by the absence of pottery and by the presence of a high percentage of Type II points.[8] Sites of this type were carefully rechecked and no bone or shell was found.[9] Pottery was usually absent but in a few cases one or two very small, badly weathered sherds were recovered.[10] All sites that contained bone and shell produced pottery and where the perishable material was most plentiful, pottery was more highly developed especially as to decorative traits. Type II points were absent on these sites.

On this basis it would appear that the art of flaking was at its height at an early age and that as it deteriorated, the ceramic art developed until its highest form was reached on the more recent sites. Sites are arranged in a series in the accompanying chart, with the one thought to be the oldest at the left and the one considered the most recent at the right. The series indicates, not only a gradual change in pottery traits and in flaking ability as evidenced by the presence of the finer points (Type II) but also a shifting of village location from hilltops to lowland sites and a decline in the use of small points in more recent times. It was surprising to find such sequential harmony in this series and it would be interesting to know whether or not like results would be obtained in an analysis of the Woodland over a wider area.

ARCHAEOLOGICAL PANORAMA OF NORTHEAST MISSOURI

Early Woodland

The earliest inhabitants of Northeast Missouri concerning whom we have sufficient evidence to study as a cultural unit seem to be those who left behind them the finest of flaked tools, artistically designed and skillfully fashioned. How long ago or from whence came these peoples is subject to speculation but because of the fact that all evidence of bone and shell has disappeared from the surfaces of their camp sites we are led to believe that considerable age is indicated. The noting of Folsom-like points among their artifacts would be further evidence of age although no antiquity such as that of Folsom Man is suggested. If pottery was used, its use was rare or the age represented is so remote that virtually all pottery has disintegrated.

A study of the long knives, barbed spears, and skinning tools would lead us to believe that the wielders of these implements gained their livelihood largely from the chase. Augmenting this evidence is the fact that relics are scattered over a wide area with comparatively little concentration in contrast to the situation that exists in the case of an agrarian people with their more or less established village. Unlike their successors, these aboriginees camped and hunted for the most part on

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8. Generalized Folsoms are included among these points.
9. It might be argued that a site without pottery, shell, and bone represents some feature other than a village site. Favoring this viewpoint is the fact that such sites are less concentrated than is usual in places of habitation. On the other hand it is difficult to explain the presence of such a wide variety of stone material on any premise other than that a village is represented. (See analysis of MAH)
10. Much pottery was recovered from RAS. so this site is an exception in this respect.

terrain not immediately adjoining a major watercourse. Indeed, the sites which produce these characteristic points often seem isolated, even to the extent of being at a distance from springs or other sources of water and one is prompted to speculate upon the possibility that the age represented is so remote that former springs have dried up. Like the Indians who followed them, these people were hill dwellers, preferring the broad slopes where an expansive view of the surrounding country might be had.

Besides the characteristic chert points, other flaked specimens are found which are much inferior to the highly specialized forms, although the patterns represented are often similar. It has been suggested that the finer points are trade pieces, fashioned by a group of experts. The similarity of many of these points from Missouri, Illinois, and adjoining states gives strength to this theory. The grooved axe was in use but is not typical of the cultural pattern as it seems to have been an implement of all successive inhabitants.

The evidence at hand leads us to classify this pattern as Early Woodland. At least it can be stated with certainty that if these people were not of the Woodland stock, they either merged with it or greatly affected the Woodland cultural pattern.

TYPICAL WOODLAND

The era that followed is marked by characteristic remains which are typically Woodland. These include the gouge, the end scraper, the grooved axe, projectile points of many designs with varied quality of workmanship, small points fashioned from flakes, and large cord-roughened pottery vessels with conoidal bases, grit tempered and decorated near the rim with simple notches. Sites evidencing occupation are numerous and, while large village sites are plentiful, the majority seem to be more of a temporary nature. High terrain and hilltops appear to have been the choice for village sites at the beginning of the era but gradually gave way to the lowland locations which were in predominance at the close.

Burials were in simple low mounds averaging three and one-half feet in height by forty feet in diameter, usually located on high ridges commanding a wide view. The mounds grew by accumulation of burials and the placement of bodies appears to have been haphazard. Skeletons are usually found in flexed positions, partly surrounded by limestone slabs irregularly placed. Grave offerings are scarce but consist of chert points, clay elbow pipes, chunks of red hematite, and sometimes pottery. River shells near the skeleton are quite common.

Throughout the era, flint chipping remained a most important art. Early sites are marked by the presence of a few of the finer Type II points but the later sites yield only the more typically Woodland Type I point accompanied by the small Type III point of flat flake technique. For the most part it appears that the art of flaking deteriorated until much of its finesse had been lost by the close of the period. The many points left behind by these people is good evidence that they were largely hunters and the numerous small points would seem to indicate that birds and the smaller animals were not overlooked.

Besides game and the natural fruits of the land, it appears that some sustenance was gleaned from the cultivation of the soil. Large agricultural implements are lacking but the gouge, which often appears in large numbers, was probably used for breaking the soil. Cooking was often done in holes dug into the ground. In this connection, slabs of broken pottery were used, probably to protect the food from actual contact with the live coals placed about it. Many sites are dotted with these pits and in them are found numerous sherds of pottery intermingled with charcoal and burned limestone.

Restoration of potsherds reveals that vessels were quite large with simple notched decorations near the rim. For the most part the shoulder is rather poorly defined and the base is invariably conoidal. This last fact would lead us to believe that vessels were at least partially set into the ground where it is likely they served as storage containers for food. Moreover, the thin walls of these vessels would preclude constant handling without danger of breakage. At the beginning of the era, pottery decorations were simple but by the close a more complex set of traits had developed.

Smoking seems to have been a well established custom. The number of pipes recovered would indicate a use more general than that of ceremony alone. Furthermore, the simple utilitarian appearance of most of these specimens would lend no grounds for assumption that anything was anticipated other than the personal enjoyment of the smoker. Simple elbow varieties made of baked clay occur almost to the exclusion of other forms. Some are undecorated but the majority are ornamented with trailed or incised lines on the bowl and stem and notches at the rim, much in the manner of pottery decorations.

Art centers around symbolic representations. A conventionalized bird design, generally known as the Thunderbird, received generous consideration. Some of these forms are swallow-tail types while others have body and tail represented like an hourglass. Almost invariably the head is eagle-like with beak pointing to the right (over left shoulder). The two wings are often represented by a crescent, more or less drooping. Small flaked objects of Thunderbird design are occasionally found. Some of these may have been fashioned from broken arrow or spear-points as the tail portion closely resembles the shank of a projectile point. Again, the design may appear scratched on the face of a gorget or in the pit of a discoidal, but only rarely so. The greatest number have been noted on the walls of natural cliff shelters where they are scratched or pecked into the sandstone surface. At such sites many types occur along with representations of animals, fish, and humans. Not only are the Thunderbird designs more prevalent at such sites but the skill of their execution usually surpasses accompanying representations.

Whether these Woodland peoples were newcomers to this region or whether the artifacts that identify them simply represent a transition in the traits of the older inhabitants, is not known. In any event it is a certainty that they dominated a wide area over a long period, perhaps until a time not greatly antedating that of early white infiltration.

HOPEWELL - LIKE

Following, or toward the close of this typically Woodland period there appeared in this region an intrusive people who left behind them relics not diametrically opposed to those of the other group but distinctive enough to be readily identified as representing other than a local transition of cultural traits. In numbers, these newcomers were relatively few and their stay in this locality was evidently limited to a short period of time. The migration was probably from the east as similar sites are more plentiful in Illinois and are rare further west. Sites of this character have been spoken of as Hopewellian, Hopewell-like, and Central Basin but regardless of the name it seems rather certain that the pattern represented was prefatory to, associated with, or affected by, Ohio Hopewell. Such sites appear to be more recent than Ohio Hopewell and the better view seems to be that a retrogression is indicated.

For their villages these people chose lowland sites, adjacent to rivers or sloughs where fish and mussels might be easily procured. Covering these sites is a profusion of thick potsherds with many decorative traits. Most of these sherds represent parts of large storage containers. The majority have a decoration at the rim produced by punching with a stick on the inside, resulting in a rounded boss on the outside and a cylindrical depression on the inside. Many are decorated with simple stamps and have designs that repeat themselves. Others are cross-hatched below the rim and otherwise decorated with trailing or incising. A few bear the imprints of small twisted ropes and others are ornamented with rocked rouletting. Some vessels are cord-roughened and others are smooth, but all are tempered with grit.

Besides the distinctive potsherds that litter the village sites, these Indians left additional marks of identification in the form of numerous sliver knives. These are long flakes averaging 50 mm. in length by 15 mm. in width with no secondary chipping. They are much sharper than ordinary flaked implements and would serve nicely for cutting leather or wood. The use of sharp flakes for such purposes was no doubt a general practise among early tribes; however, these Indians were unique in that they developed a specialized form of sliver knife that is distinguishable from the ordinary spall.

The occurrence of stone gorgets of banded slate, which is not indigenous to this region, indicates travel or trade connections, probably with the East. Local materials also were used for the making of gorgets and the number of these objects recovered is great enough for them to be considered as index artifacts of this cultural pattern. Clay pipes that somewhat resemble the platform varieties also may have diagnostic value.

The flint working ability of these people may be described as average, although it appears that they would have been capable of producing much finer points had they given more attention to the secondary flaking. Like other artifacts of this complex, the chipped pieces have a distinctive appearance. Most noticeable features of the projectile points include a rounded base, hook-like notches, and a tendency toward broadness.

OTHERS

For some reason the Mississippian people did not enter this region, at least not in large numbers, for no evidence of them has been reported. The Sacs and Foxes came here from their principal villages near Rock Island, Illinois, and Keokuk, Iowa, to hunt and fish and to make raids on their enemies, the Osages, farther to the south.[11] A band of "Northern Indians" encamped on the bluffs north of Hannibal during 1836 and a few years thereafter.[12] No doubt many other tribes passed through this region in their trek ahead of the advancing white settlers and in migration to Indian territory, but this story it is the function of history to relate.

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[11] Blackhawk's Autobiography.

[12] History of Marion County.

TRAITS	SITE MAH	SITE MA1	SITE RAS	SITE MA2	SITE MA3
POTTERY	Pottery absent or extremely rare.	A few small sherds of Type I pottery.	Type I pottery in abundance- 5 decorative traits.	Type I* pottery in abundance- 8 decorative traits.	Type II pottery in abundance- 12 decorative traits.
BURIAL CUSTOMS	No evidence.	Mounds present, no record of excavations.	Accretion mounds, flexed burials, few offerings.	Accretion mounds, flexed burials, few offerings.	Mounds in general vicinity- no record of excavations.
GOUGES	None observed.	Gouges present.	Many gouges.	Gouges present.	Gouges present.
LARGE PROJECTILE POINTS AND KNIVES	Type I - 51% Type II - 49%	Type I - 50% Type II - 50%	Type I - 88% Type II - 12%	Type I - 100%	Type I - 100%
SMALL POINTS	(52% of all pts) Type III - 65% Type IV - 35%	(89% of all pts) Type III- 87% Type IV - 13%	(70% of all pts) Type III- 100%	(50% of all pts) Type III- 100%	(10% of all pts** Type III- 75% Type IV-- 25%
GROOVED AXES	None observed.	Present.	Present.	Present.	Present.
VILLAGE LOCATION	Hilltop- 2 mi. from large body of water.	Hilltop- 1 mi. from large body of water.	Hillside- above large body of water.	Lowland- adjacent to large body of water.	Lowland- adjacent to large body of water.
SEMI PERISHABLE MATERIAL ON SITE	No evidence of shell or bone.	No evidence of shell or bone.	No evidence of shell or bone.	Bone and shell present.	Bone and shell plentiful.

* Pottery shows some evidence of transition toward Type II.

** Only four small points in analysis.